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Bio/Bio News

November 2016

RYLAND YOUNG, III NAMED REGENTS PROFESSOR

Dr. Ryland Young, III, Professor with the Department of Biochemistry, and Director the Center for Phage Technology at Texas A&M University, was recently designated as one of 11 faculty members and seven agency service, extension or research professionals within the A&M System as Regents Professors and Regents Fellows for 2015-2016, by the Texas A&M University System Board of Regents.

The Board established the Regents Professor Awards program in 1996 and the Regents Fellow Service Awards program in 1998 to recognize employees who have made exemplary contributions to their university or agency and to the people of Texas.

Cliff Thomas, chairman of The Texas A&M University System Board of Regents, said the newest Regents Professors and Regents Fellows are vital members of the Texas A&M System family who bring with them unique skills and perspectives.

“These folks are integral to steering the System toward continued excellence,” Chairman Thomas said. “With them at the helm, the universities and agencies under The Texas A&M System can only keep improving.”

Texas A&M System Chancellor John Sharp said the new Regents Professors and Regents Fellows have proven their commitment to The System’s success.

“The recently recognized professors and professionals represent the best of our great System and higher education in Texas,” Chancellor Sharp said. “Their work consistently elevates Texas A&M System campuses and agencies.”

The selection process for the awards begins with a call for nominations from the Chancellor, after which an internal selection committee is formed within each institution or agency. Final nominations are put forth to the chief executive officer of each respective entity. They are then subject to a System-level review consisting of academic vice chancellors and past recipients of the awards. Finally, nominations are forwarded to the chancellor and the board for final approval.

To date, 212 Texas A&M System faculty members have been recognized with the Regents Professor Award and 125 agency professionals have received the Regents Fellow Service Award.

PCL EXPANDS TO INCLUDE METABOLOMIC ANALYSIS

By Dr. Jim Hu



There are new metabolomics services available at Texas A&M. Dr. Larry Dangott (Dept of Biochemistry & Biophysics and The Protein Chemistry Laboratory (PCL)) and Dr. Arul Jayaraman (Dept of Chemical Engineering) were recently awarded \$1.55M by the Research Development Fund (of the OVPR) to expand the PCL capabilities and establish the Integrated Metabolomics Analysis Core (IMAC) for the analysis of metabolites and other small molecules. The laboratory is located in space generously provided by the BioBio Department alongside the PCL on the fourth floor of BioBio (room 402). The funding was used to purchase three new mass spectrometers and ancillary equipment, and hire two new, full time, staff people. The laboratory manager, Dr. Cory Klemashevich, is a (three degree) graduate of Texas A&M and has extensive experience in targeted metabolomics analysis. Cory joined the IMAC staff on July 1 and has been actively setting up the lab and getting trained on the new instruments. Please say “Howdy” to Cory when you see him around the department.

The IMAC has two LCMS instruments and one GCMS instrument, all from ThermoScientific. The QExactive Plus OrbiTrap is a High Resolution/Accurate Mass instrument that will be used for ‘untargeted’ metabolomics studies using our in-house Compound Discoverer software and molecular structure libraries. The TSQ Quantiva is a triple quadrupole instrument that will be used for ‘targeted’, quantitative analysis. Both instruments are LCMS systems (liquid chromatography-MS) with dedicated LC systems for each. The third instrument is a TSQ 8000 Evo GCMS (gas chromatography-MS) and is also a triple quadrupole instrument that will be used for ‘untargeted’ and ‘targeted’ analysis of volatile analytes that are not amenable to liquid chromatography. All instruments are controlled with the latest version of Trace Finder control and analysis software. In

addition, the laboratory is equipped with all the small instrumentation required for the extraction of a variety of sample types (serum, plasma, tissue, organ, feces, organism) and is eager to help students and postdocs learn or develop extraction methods to fit their needs.

Although service and research are foremost, education and training are an important part of the mission of the IMAC (as it is in the PCL) and, as such, the IMAC will be presenting training workshops and seminars on a variety of metabolomics related topics, some presented by nationally recognized experts in the field. Metabolomics studies often require large sample sets, so it is planned that selected students/postdocs with large projects will become trained on the instruments and be allowed supervised use of the instruments. Even if students do not run the instruments, there will be training on the bioinformatics software and libraries housed on our new in-house server for data processing. The IMAC possesses multiple software licenses of Trace Finder and Compound Discoverer, so several users can analyze data remotely, and simultaneously.

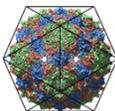
We invite you to contact Cory (845-4832, c.klemashevich@gmail.com) or visit the IMAC to set up an appointment to discuss your metabolomics analysis needs. Also, check out our new website (imac.tamu.edu) for additional information and details about project interviews, protocols, sample submission, policies and fees.

STRUCTURE OF AN SSRNA VIRUS FROM J. ZHANG'S LAB

By Dr. Jim Hu

A new cryo-EM structure from Junjie Zhang's group in the Department of Biochemistry and Biophysics is highlighted and on the cover of the October 11 2016 issue of PNAS.

Bacteriophage Q β is a single-stranded RNA virus that infects bacteria that have F-pili. In collaboration with the Young group at Texas A&M, two graduate students, Karl Gorzelnik and Zhicheng Cui, from the Zhang group, used cryo-electron microscopy to solve the first asymmetric structure of the Phage Q β , which clearly revealed a defined RNA genome inside the viral capsid. This result provides new insights into the assembly of ssRNA viruses.



Filed Under: [BioBio News](#), [Research](#)

ANNUAL BIO/BIO THANKSGIVING POTLUCK LUNCHEON

Each year the Biochemistry Department faculty, staff and students share in a Potluck Luncheon, sponsored by the BGA.



This year's luncheon continues the tradition. The luncheon will be shared together on Monday November 21st, set up beginning at 11:30 in room 106A, lunch from 12-1:30PM.

In keeping with tradition everyone is invited to participate in the luncheon and bring one or more dishes of prepared food.

Traditional dishes from your family recipes are always a delight for all to enjoy. We welcome all kinds of dishes, so feel free to make whatever you like! You can sign up to bring a dish using the form at the following link: <https://goo.gl/forms/cFYZT3nr19osIIMgl>. If you have any questions, comments, or suggestions, please email Dan Browne at bgatamupresident@gmail.com

Labels for the dishes brought, including a place for your name so that you will be assured of having your dish returned to you after the lunch, will be available in room 106A. Or if you wish, you can stop by room 103, prior to the luncheon, and pick up a label for your dish.

The BGA gladly welcomes all "volunteers" to help in the set up of the tables and room, setting the food out for the luncheon, and of course clean up



2016 Bio/Bio Fall Extravaganza



The Biochemistry Department went over the top this year in giving to the Flower Fund through the various activities held during the month of October to raise much need funds. By raising funds (and having a GREAT time doing it) we are able to provide flowers, fruit baskets, etc. throughout the year for our faculty, staff or students who may experience a birth in the family, hospitalization or loss of a loved one.

First and foremost – "thank you" to our participants who put their reputation on the line as contestants in the event! The success of our 2016 fundraiser could not have had the success that was experienced without their good nature and willingness to participate. Thank You!

2016 Biochemistry Department Fall Extravaganza Flower Fund Raising Events

Place	Contestant	Baked Potato Luncheon Oct 7	Pancakes Oct 11	Baked Potato Luncheon Oct 14	Pancakes Oct 18	Bake Sale Oct 19	Pancakes Oct 25	Taco Soup Oct 28	Last Minute Donations	Totals
	Betty Cotton	14.50	3.00	5.00	1.25	12.50				\$36.25
	Craig Kaplan	11.00	17.09	13.00	6.00	16.00	4.00	15.00		\$82.09
4	Greg Reinhart	30.00	25.00	17.00	30.00	5.00	22.00	33.00		\$162.00
	Jae-Hyun Cho	12.85	30.50	18.00	8.00	15.20	1.00	36.00		\$121.55
	Jean Philippe Pellois		13.00	7.00	17.00	20.50	0.00	11.00		\$68.50
	Jennifer Herman	21.00	6.00	10.00	9.00	2.10	14.00	0.00		\$62.10
3	Larry Dangott	6.00	24.00	17.00	5.00	50.16	15.00	75.50		\$192.66
	Leisha Mullins	5.00	38.00	32.00	17.00	9.30	15.49	0.75	11.00	\$128.54
	Michael Polymenis	10.00	3.00	16.00	7.13	4.25	2.00	0.00		\$42.38
	Paul Straight	23.00	4.60	11.00	7.00	16.85	3.00	5.00		\$70.45
	Rafael Almanzar	26.00	18.00	11.00	5.00	13.25	3.00	19.00		\$95.25
2	Ry Young	33.00	22.00	16.00	24.00	22.77	22.00	63.00		\$202.77
1	Tatyana Igumenova	3.00	36.00	50.00	7.00	51.25	65.68	46.50	20.00	\$279.43
	Vanetta Geiger	7.00	11.00	7.00	3.35	4.00	0.00	19.00		\$51.35
	Totals	187.85	267.68	228.00	150.28	231.88	129.67	493.75	31.00	\$1595.32

Though the fund raising efforts are a lot of work, the fun enjoyed during the contest, while doing the fund-raisers and the benefits of those sharing in the responsibilities, and those donating far exceeds all else.

As of October 31, 2016 a grand total of \$1595.32 was given to the Flower Fund. We want to especially thank those who volunteered to participate in the "fun activities" at the Hula Hoop contest held on October 31.

As you can see by the chart the four volunteers who were the "Lucky" winners of the contest, and were "privileged" to participate in the contest for Hula-Hoop Champ for the Dept. of Biochemistry were 1st place – Dr. Tatyana Igumenova, 2nd

place Dr. Ryland Young, 3rd place, Dr. Larry Dangott, and coming in 4th place, Dr. Greg Reinhart.

The contestants were allowed to “warm up” before the competition and then the “race” for champion was on – the competition lasted for almost 10 grueling seconds before the inevitable truth was beheld by those who were watching – Dr. Tatyana Igumenova topped out the competition and surfaced as the Hula-Hoop Grand Champion of the Biochemistry Department 2016. (But for those who lingered a glimpse into the future of Hula Hooping in the department was played out!) Dr. Igumenova and Betty Cotton “teased” the crowd with a performance that might be a glimpse into future events!

The door-decorating contest had some great entries this year as well! Some real competition was exhibited in the careful and thoughtful design of the theme chosen by the various labs.

1st Place Winner for the Door Decorating Contest was the Peterson Lab. To quote Betty – “I don’t think Dr. Peterson needs a ‘No hand carry allowed’ for his hallway any longer. Pretty scary.”

The Undergraduate Programs Office placed 2nd with their “Bad to the Bone” theme! Great job, yall!

The winner of the 3rd Place prize for the Door decorating contest was the Panin Lab with their “Little Lab of Horrors” theme!

4th Place went to the Cruz-Reyes Lab with their theme of “Beware of the Real Scientists”.

One thing about it – the Department is not lacking on creativity – there is a lot of artistic design in this department where scientific minds work so feverishly!

Congratulations to all who participated and help make this year’s Fall Extravaganza the very best year – yet! But 2017 is just around the corner, so be making even bigger plans for next year!



IN NEED OF ASSISTANCE?

Occasionally you may find that you are in need of assistance, please feel free to give one of those listed below – we’re always available to help you, and if we don’t have the answer – we’ll be most happy to try and direct you to the person who *can* assist you! We endeavor to always have a “smile” included with our attempt to assist you.

Contact Us For Assistance

Betty Cotton, Assistant to the Dept. Head, Dr. Gregory D. Reinhart, Room 103D – 979-458-0630, blcotton@tamu.edu
Accounting Dept. – 845-6837

Vanetta Geiger, Sr. Academic Advisor I, Undergraduate Programs Office, Biochemistry & Genetics, Room 104C, 979-845-1142, vjgeiger@tamu.edu

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UPCOMING EVENTS IN BIO/BIO

Faculty Meeting, N127, 3:30PM	Nov. 28
BGA Potluck Luncheon, 106A 11:30-1:30	Nov. 21
Thanksgiving Holiday	Nov. 24-25
COALS Commencement 2PM	Dec. 16
Bio/Bio Holiday Celebration 6-9PM	
Phillips Event Center @ Briarcrest	Dec. 19
Faculty & Staff Holiday	Dec. 23-Jan 1