

Biochemistry and Molecular Biology NOTES

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Accolades at Retirement Reception for Bill Bosron and Bob Harris held on Dec. 16, 2008

Colleagues, friends and family turned out in large numbers for the December 16th open house retirement reception for Bill Bosron and Bob Harris, who looked forward to Dec. 31, 2008 as their last day as employees of IU School of Medicine. The Med Science first floor atrium was the scene of the event from 4-6 p.m. where guests enjoyed a sumptuous buffet, offered their congratulations and recalled shared memories with the two honored faculty members. Selected speakers provided insight into Bill and Bob's academic careers (Dr. Ora Pescovitz and Dean Craig Brater), their former students (Dr. Dave Crabb and Dr. Tom Hurley), their colleagues (Dr. Howard Edenberg and Dr. Peter Roach [unable to attend, his comments were read by Dr. Zhang]), and a department administrator (Mary Harden). Dr. Zhong-Yin Zhang capped the assembled group's sentiments of wishing them well in their new post-IU endeavors as well as thanking them for their many years of outstanding and exemplary service in research, teaching, and administration.

He then presented beautiful crystal and wood awards to each Bill and Bob with deep appreciation from the Department. After 35 years with IU, Bill plans to continue research on an NIH R21 award in his lab at BRTC as well as additional traveling with his wife, Sheila. They'll likely combine their love of art with their travels. Since he joined IU in Jan. 1975, Bob's keen interest in research remains strong after 38 years. It's no surprise that his immediate plans are to continue kinase research at the VA hospital on campus using a newly awarded VA grant, and no doubt some travel with his wife, Karen.

As emeritus faculty, they have new titles. Bob is Distinguished Professor Emeritus and Showalter Professor Emeritus of Biochemistry and Molecular Biology; Bill is Professor Emeritus of Biochemistry and Molecular Biology and Medicine.

We offer our heartiest congratulations to both Bill and Bob and wish them many years of joy in pursuing their new activities.

Save the Date: Harris Symposium

Please be sure to save the date of **Friday, April 17, 2009** for a Symposium planned in honor of **Bob Harris**. Talks will be held from 12:30 to 4:30 in Emerson Hall auditorium, followed by a reception in the Med Science 1st floor atrium from 4:30 to 6:00. Look for details to follow via email in the next few weeks.



Congratulations

Yuanshu Dong, an Assistant Research Professor in Zhong-Yin Zhang's lab, and her husband, Hongyang Li, welcomed daughter Alyssa at 6:56 a.m. on December 11, 2008. Everyone is doing well.

Susan Steele-Moore, Research Coordinator at Bioinformatics, and her husband, Tim, are thrilled to announce the birth of their new little son, Matt, born on Nov. 24, 2008. Matt weighed in at 7 lbs. 6 oz and was 20 ½ inches long. He joins 3 other siblings. Best wishes!

Grants and Fellowships

Big congratulations go to **Peter Roach** for his new R01 award for the project, “Glycogen Metabolism and Lafora Disease”!

Yuro Takagi's NSF proposed project, “High resolution structural and functional mapping on mediator of transcriptional regulation” has been recommended for funding. Cheers!

The I-CTSI TRAC1 Project Development Team awarded funding to **Millie Georgiadis** for her work on “Exploring inhibition of AP endonuclease activity in *toxoplasma gondii* in the development of new anti-parasitic agents”. Part of the funding will support the use of the Chemical Genomics Core Facility. Congrats to Millie!

Maureen Harrington will receive an NRSA fellowship for her project, “Insight into the mechanism through which TNF inhibits hematopoietic stem and progenitor cell expansion”. Well done!

Samy Meroueh received a BRG award for his proposal, “Targeting Interactions of Tissue Transglutaminase for Blocking Metastatic Ovarian Cancer”. Kudos!

Cheers to **Andy Hudmon** for his new AHA NCRP Scientist Development Grant funded project, “Targeting and phosphorylation of Nav1.5 voltage-gated sodium channels by CaMKII”!

Charlie Dong's proposal, “Role of Pyruvate Dehydrogenase Kinase in Glucose Homeostasis”, is being funded through an NIDDK R00 award. Cheers!

2008 was a good year for former students and adjunct faculty

Hui Zong (Ph.D. 2001, Lawrence Quilliam's lab) an Assistant Professor of Biology at the University of Oregon, was among 20 US researchers to receive a prestigious Pew Scholarship in the Biomedical Sciences.

Melissa Green (Ph.D. 1999, Maureen Harrington's lab) is the director of the division of science and technology, United Negro College Fund Special Programs Corporation, Fairfax, VA. She was a speaker at the IUSOM's Diversity Week

celebration Jan. 20-25, 2009. Her talk was titled, “A Neglected Responsibility: Diversity in STEM Education”.

Yvonne Kobayashi (Ph.D. 2000, Larry Jones' lab) recently published in *Nature*: Kobayashi, Y.M, et al., Sarcolemma-localized nNOS is required to maintain activity after mild exercise. *Nature*. 456, 511-5, 2008.

Chunmei Zhao (Ph.D. 2002, Gen-Sheg Feng's lab) published a review in *Cell: Mechanisms and Functional Implications of Adult Neurogenesis*. C. Zhao, W. Deng, and F.H. Gage. *Cell* 132, 645-660, 2008.

Ron Bowsher, Ph.D., Adjunct Assistant Professor and Chief Scientist for Biopharma Services at Millipore, was presented with the American Association of Pharmaceutical Scientists' (AAPS) Presidential Citation by during that association's November 2008 annual meeting in Atlanta, GA.

Important Dates

Fri. 4/10/09 – Good Friday
(Campus Holiday)

Fri. 4/17/09 – Harris
Symposium

Mon. 5/25/09 – Memorial Day
(Campus Holiday)

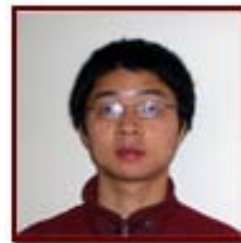
New People in Biochemistry



Praveena Yarru
Research Tech
Edenberg Lab



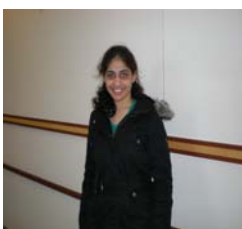
Melissa Staley
Research Tech
Lim Lab



Jun Ming Liao
Post-doc
Lu Lab



Dean Wiseman
Post-doc
Thurmond Lab



Priyanka Gogte
Lab Assistant
Lu Lab



Hyun-Young Cho
Post-doc
Lim Lab

Recent Graduations

Raja Muthukrishnan of Dave Skalnik's lab completed her Ph.D. degree requirements in December 2008. She's currently considering various post-doc positions.

Lacey Dobrolecki of Linda Malkas' lab finished her MS degree. She will continue to work in Dr. Malkas' lab.

Best wishes to you both!

New Moves

Mu Wang and his lab group have relocated from the BRTC building to Med Science building. The lab shares Room 402 with Clark Wells' group, and Mu's office is in Room 405 which is located within the lab.

Mark Goebel and his group are also on the move, now sharing the lab of Maureen Harrington in MS 4071. Mark's office is in 4071A.

The lab groups and faculty phone numbers and email addresses stay the same.

Darlene Lambert, previously at Biochem's BRTC Office, has joined the Biochem Office staff in MS 4053. Her new phone number is 274-7151; her email stays the same. Also, **Melissa Percy's** phone number in the Biochem Office has changed to 278-7770.



Memoirs of a laboratory under the influence: A whistle-blower's report

Many of you know the sordid history of the Bosron laboratory, the ravages of drugs of abuse. It's the classic story, it all started so innocently with alcohol – as it always does – the entry drug that ultimately leads to experimentation with harder drugs and finally and tragically to prescription drugs. Along the way questionable career decisions were made – from dabbling in administration under the guise of education and, in later years, to a full and frank addiction to administration.

Maybe we should have seen it all coming from the outset. Bill came from a small (relatively) town in western Ohio, following the city lights to Cincinnati where he was first exposed to the seductive allure of alcohols, in the form of an enzyme brazenly named aldehyde reductase; clearly named so the innocent wouldn't see if for what it really was – an ALCOHOL oxidase. Bill tried to break away from these influences and moved to Boston where he began to work with, of all things, a hydrolase called alkaline phosphatase (Hydrolases would figure prominently later in his life, but it all started here in Boston). However, we all know the influence that big city life and close and continued exposure to illicit avenues of pursuit can have on those susceptible to their allure. His compatriots in the same building and adjacent rooms were experimenting with his old nemesis – alcohol, and although he managed to escape from Boston without documented evidence of his new addiction, it became abundantly clear when he settled down in Indianapolis that his addiction to alcohol had come to the forefront.

A series of published articles from this time document well his fascination with the subject – we all know the stereotype – those most uncontrollably under the influence of illicit substances, read and write about them incessantly, seemingly the 'go to' person for information on the detrimental effects of their use. He even began to research and develop opinions as to the racial differences in alcohol use and abuse; someone clearly so far into the throes of addiction that he can rationalize anything.

Then the story really begins to get sad, as Bill's prominence began to progressively influence a whole new generation of soon-to-be addicts – students – young people for whom the beguiling influence of Bill's obsession would prove difficult to overcome. First there was Paul and Joe, who thankfully were able to kick the alcohol habit after a mere four to five years of residence at the medical center. However, they both developed odd habits of hanging out at the morgue and looking for fresh livers, something that continues to plague Paul to this day and Joe is now influencing a whole new generation of young people by teaching them 'Chemistry'. Lisa and Ann were the most resistant to his influence, managing to escape after mere three years of treatment, both had to leave the country in order to successfully avoid a return to old habits. But things were beginning to change and become more subversive, merely surveying the influence that alcohol dehydrogenases have on the metabolism of alcohol was no longer enough, under Bill's influence Carol and Tom began to branch out into new and stranger alcohols and to design new enzymes that might be able to change the way and speed in which alcohol could be metabolized. In a telling harbinger of things to come, Torsten took this 'designer enzyme period' to new levels when he added 'free bases' to these engineered enzymes to improve their ability to influence the effects of alcohol metabolism. Sadly both Carol and Tom became tolerant to the mere study of enzyme action and both graduated to harder sciences on opposite

coasts of the US, with Carol drawn to California and Tom to Maryland where there was easier access to these harder sciences.

With the departures of both Carol and Tom, two new students - Zhong-Ning and Gerard - were drawn into the ever widening circle of Bill's alcohol influence. Both took up where Carol and Tom left off and began to study the effect that alcohol had on different ethnic/racial populations, as well as the development of fetal alcohol syndrome or FAS, a pursuit that Natasha shamelessly continues to this day. So now Bill's involvement with alcohol had even been felt by those most helpless – clearly things were spiraling out of control and after 15 years under the influence of alcohol, experimentations with a new drug of choice were beginning to surface.

As with alcohol, the initial dabbling with hard drugs was influenced by close compatriots at his place of employment – somehow Bill immediately understood the implications and was intrigued by this pursuit of his associates; he wondered “What was the basis for this ‘better high’ when ethanol was co-abused with COCAINE?” This pursuit led full circle to his ‘hydrolase’ days in Boston and now Bill was in his element. One day Bill came into his office singing the lyrics to “Smuggler’s Blues” by Glenn Frey and that’s when his closest colleagues knew that Bill’s new obsession was in full swing. Soon Bill and his associates were synthesizing these designer drugs in several laboratories and, as was the case with the experiments with alcohol, students were soon drawn into their sad, sordid circle. Monica began a long fight with cocaine and heroin, eventually kicking the habit and successfully graduating from Bill’s circle of influence. Unfortunately, the experimentations were also beginning to get out of hand – at one point requiring emergency medical intervention for an unsuspecting medical student who had an ‘accident’ during his frenzied synthesis of these new ‘designer drugs’. This incident, known to Bosron insiders as the “coca-ethylene incident”, left many shaken, but even today, some 16 years later it has somehow been kept out of the public eye.

It was during this period of brazen alcohol and drug experimentation that Bill’s judgment began to weaken. Continuous exposure to a new illicit influence – something we’ll call ‘administration’ - led to more than a decade of wanderings down dark and lonely halls to those oft whispered about ‘offices’ in the bleak reaches of dilapidated buildings where the purveyors of grandiose and shattered dreams reside. This is the stuff of legend and only Bill truly knows the horrors of this period and, with the sanity of the audience in mind, I will not linger on these truly disturbing images and proclamations, suffice it to say that it took the full effort of his extended circle to pull him successfully from these dark and dank halls and into the light of salvation. Sadly, he soon began to relapse into his obsession with drugs, but now these drugs were the prescription variety, since his prodigious appetite for drugs of abuse now required more powerful masters. Jing was the first to succumb and required constant exposure to Demerol and Darvon in order to complete her sentence and graduate to less corrupting influences.

This new direction required a two-pronged approach, one that would envelop whole families, and Bill had just the victims in mind. A husband and wife team, Paresch and Sonal, was brought in, one to work the alcohol angle and the other to work the harder drug angle. Both were instrumental in pulling Bill from the clutches of his addiction to administration, but were clearly not strong enough to keep either themselves or Bill from falling prey to the all consuming desire for alcohol and drugs. Continued exposure to these toxic compounds was also to have

unintended, but maybe not unexpected effects, as cancer rather than liver disease became the new end-point to endure. At the same time, new students were pulled into Bill's circle and struggled to against its ever tightening pull; Sara, Zeijun and Marissa were all sentenced to time served and released on their own recognizance, though none have been able to completely sever their ties to Indianapolis.

As with many things in Bill's life, the stereotype that one is never cured of an addiction – it is only in remission - is true and his predilection for administration reared its ugly head again after a full four years of abstinence. True to form, as with many addictions the second cycle drops you deeper into the hole of despair and this administrative episode pulled him away from the bright halls of his new home to the southside of campus where strong undercurrents and unseen rip-tides of red-ink and indecisiveness are rumored. Fortunately for Bill, his previous experience with administrative addiction and the extreme despair brought on by this sudden slip to the dark side quickly sobered him up and he was able to extricate himself in just over a year from this bleak forest and returned to his more familiar and less destructive stomping grounds of alcohol and drugs.

I am proud to say that Bill is now free and clear from administration, but he will probably never be free from his obsessive desire for alcohol and drugs, but we, who have lived through it, are all clearly better off from his obsession and I, personally, am thankful for the experience.

ANONYMOUS