

## THE [CATALYST]



## INSIDE THIS ISSUE:

A Special Tribute	2
The Spotlight	3
Coffee Break	4

**Quote of the Month:**

"We especially need imagination in science. It is not all mathematics, nor all logic, but it is somewhat beauty and poetry."

Maria Mitchell



PLEASE  
RECYCLE

**[News & Announcements]**

Congratulations to **Mike Miller** and **Nyles Charon** on having their R01 funded!! Mike and Nyles will be co-PI's, titled "Protein-Protein Covalent Bonding and Treponema Motility." Mike offered this description of the project: *It's the most fun project I have ever been involved with and I've had to learn a lot about MS/MS analysis and other approaches new to me, so it's very stimulating. Basically, in all bacteria with flagella, the long flagellar filament is linked to the membrane-bound motor via a "hook", which functions as a universal joint. We believe the hook proteins in spirochetes are covalently linked to each other, whereas in all other flagellated bacteria the hook proteins are not crosslinked. If we can elucidate this crosslinking, we hope to develop novel drugs that would inhibit the crosslinking, impeding spirochete motility and virulence. Such drugs could be used to treat Lyme disease, syphilis, periodontal disease and leptospirosis.* Mike was also notified that the grant will be funded for a full 5 years with no budget cuts! **Congrats, Mike and Nyles!!**

Another well-deserved congratulations to **Mike Miller**, who has been invited to speak about at the Gordon Research Conference titled "The Biology of Spirochetes" in February 2014. This is a huge honor and another great opportunity in his retirement. Way to go, Mike!!

Congratulations to **Amanda Suchanek** on her selection to attend the 2013 National Graduate Student Research Conference (NGSRC)! The NGSRC is an annual two-day event held on the main NIH campus in Bethesda, MD. The 2013 Conference, to be held on October 6 to 8, will introduce 90 advanced graduate students in the sciences to the NIH Intramural Research Program (IRP) to share their science and meet with NIH scientists. Amanda is a 5<sup>th</sup> year graduate student in Lisa Salati's lab and will be presenting a poster on her dissertation research titled "Dietary Intake Regulates G6PD mRNA Splicing Via A Bifunctional ESE/ESS Element." Way to go, Amanda!

**[Chair's Corner]**

This issue of the newsletter focuses upon Mike Miller in honor of his retirement from the Department of Biochemistry after 36 years of service. He ran an active research program for many years and studied a broad range of scientific problems including DNA replication and repair, and regulation of estrogen signaling in breast cancer cells. During this time, Mike successfully trained a number of talented graduate students who have gone on to very productive careers in academia and industry. In recent years, Mike has teamed up with Nyles Charon to study the molecular structure of the spirochete flagella to determine critical features for motility of this pathogen. In addition to his research efforts, Mike has been a very strong teacher in the Department of Biochemistry,

playing a key role in teaching biochemistry in our courses associated with the professional programs in the HSC. He always rates very highly in student evaluations and suggestions for course improvement often have the comment "Mike Miller should give more lectures!". Mike has been an invaluable member of the Department and could always be counted on. We all truly wish him the best in his retirement. About a week after Mike's official retirement, Nyles and Mike received word from NIH that their recent R01 application was approved for funding. Without any departmental duties to impede him, Mike is looking forward to continue working on the project in his new position as Professor Emeritus of Biochemistry. Congratulations Mike!

-Mike

# [Thoughts on Dr. Mike Miller]



Back in the late 1970s when Mike Miller was a young gun in WVU's Department of Biochemistry, he and Rolf Kletzien were part of the new wave of cell and molecular biologists that were revolutionizing basic biomedical research. The two Harvard-trained scientists established the department's first mammalian cell culture facility. I started in Mike's lab in 1980 as his third graduate student, behind Pragna Patel and Chris Meyers. Robbie Shinaberry and Neil Chinault rounded out the Miller lab. Mike's main research focus at the time was DNA replication. He also had a broader interest in aging as evidenced by the picture he posted on his door of a weathered old man with the caption "30 year-old Assistant Professor". For some reason I chose not to study either replication or aging, which was probably a mistake. In addition to being an outstanding scientist, Mike could also prepare a mean haggis. One serving of this gastronomic delight was enough to last a life time.

Mike and I taught the Dental Biochemistry course. I enjoyed teaching with him. He is very easy to get along with and willing to help others. I remember Mike as a good friend, conscientious teacher and researcher. I wish him the best during his retirement years.

**George Tryfiates**

For a time, in between marriages, Mike lived with me at my house. There was a decided increase in parties then, which at one of them Cindy and I began seeing each other. During Mike's stay we shared recipes and had some very interesting meals. One evening in particular sticks in my mind. After a libation Mike announced that he would do dinner and wondered what cut of deer meat I would prefer. What are my choices?, I asked. He said the tenderloin was his favorite, so I agreed. I expected him to go into the freezer or fridge for the meat but he disappeared for a bit and then resurfaced with two very fresh looking pieces of meat. Where did this come from, I asked? From the deer hanging out in your Maple tree. A bit too close to reality for me... but delicious on the grill.

On another occasion, after Mike moved to his own place, we were invited to a birthday party for Drew at the Shiemke's. We were to pick Mike up but when I went to the car there was a dead possum smack dab in back of it. I called Mike to tell him and say we would be a little late as I needed to figure out what to do with the possum. He replied: Are you kidding? We are going to a birthday party and you have a dead possum? Lets dress him up and take him! This we did, right down to a cigarette in his little hand. Drew and Kim were less than enchanted with the arrival of this party guest.

**Larry Harris**

Mike put up with a lot from me, including being very understanding about my numerous accidents. This includes the time I caused a major 32P spill in the cold room, or the fateful day I destroyed a high speed centrifuge by not properly securing the rotor lid. Then there was the time I sliced my finger on a broken roller bottle. Somehow this West Virginia boy made it through the program alive. My experience as a graduate student was a defining moment in my life and Mike obviously played a big part in it. I've been a faculty member in North Dakota for over 20 years now. When one of my students is traumatized by a mistake, I try to emulate my Ph.D. advisor who always showed me a little kindness, patience, and humor. Thanks Mike.

**John Shabb, Ph.D.**

# Happy Retirement, Mike!

# 10 Things you didn't know about Mike Miller!



Mike & Tammy cooking up  
something fabulous!

## The Basics:

**Title:** Professor

**Lab/Office:** I'll check this tomorrow

### **1. If you had to do it all over again, what would you study in school?**

Biochem – sometimes I find it hard to believe I get paid for this – I love my work!

### **2. Hands-down favorite movie?**

That's tough – toss up between Grind House and Fear and Loathing in Las Vegas

### **3. Have you ever broken the law?**

(Speeding/parking tickets excluded)  
Seriously? Way too often (and never caught).

### **4. Favorite vacation spot and why?**

Cozumel – excellent diving, the locals are terrific, beautiful on land and underwater, great food & drinks.

### **5. Have you ever met anyone famous?**

Jim Watson at Harvard when post-doc'ing.  
Bit of a let-down, really.

### **6. Were you named after anyone in particular?**

My Dad's nickname was Mike.

### **7. Where/when did you meet your significant other?**

In the Biochemistry Office, another benefit of working in Biochem.

### **8. Best advice anyone's ever given you?**

"Be yourself; find a research project you LIKE; do a good job teaching and don't do a good job on committees you're placed on that you don't want to be on". Art Paree, my postdoc advisor.

### **9. Worst movie of all time?**

The Libertine, and I'm a Johnny Depp fan – walked out after ~30 min..

### **10. What are you thankful for?**

I feel very blessed and the list of people and things I am thankful for is toooo long to even begin!

the[Spotlight]

## [Newsday Crossword]

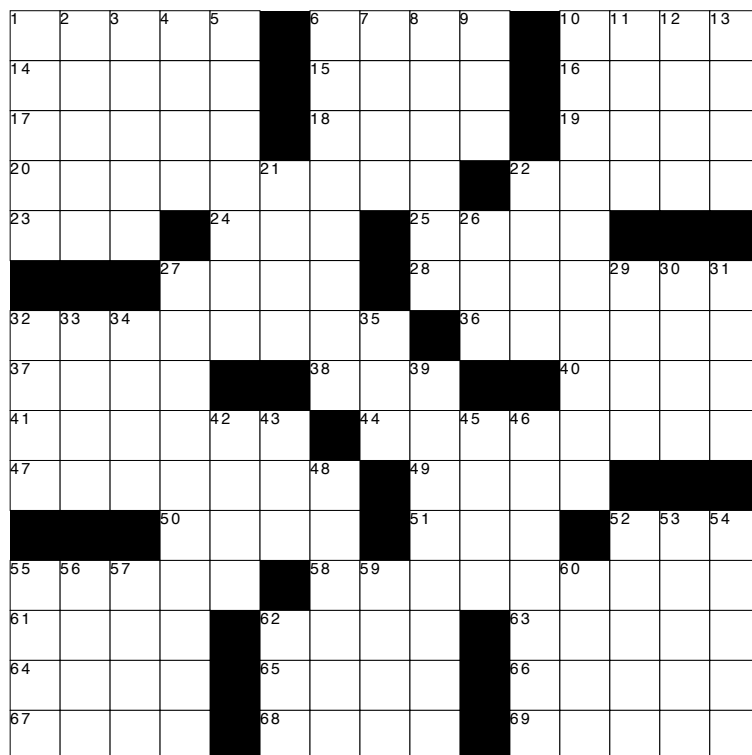
10/08/13 FALL TREATS Billie Truitt, edited by Stanley Newman

## Across

- 1 Overcharge for tickets  
 6 Quickly, in a memo  
 10 Writing tablets  
 14 Group of experts  
 15 Gear teeth  
 16 Great Salt Lake state  
 17 Sports venue  
 18 Wishes undone  
 19 Greedy one's cry  
 20 Traditional fall snack  
 22 Made a choice  
 23 Plane's takeoff stat.  
 24 Marvelous, in '60s slang  
 25 Turkey meat choice  
 27 Mystical glow  
 28 Helps  
 32 Lacking nothing  
 36 Bigwig  
 37 End of a lasso  
 38 Use needle and thread  
 40 Prefix for trooper or medic  
 41 Funnel-shaped flower  
 44 Encouraging words  
 47 Ascertains  
 49 Soft French cheese  
 50 Pepsi or Coke  
 51 Moral misdeed  
 52 L.A. clock setting  
 55 Visit unexpectedly  
 58 Traditional fall dessert  
 61 In the thick of  
 62 Took a photo of  
 63 "Oliver Twist" villain  
 64 Evening, in ads  
 65 In good health  
 66 Out in the open  
 67 Have the lead role  
 68 Potato buds  
 69 Takes it easy

## Down

- 1 Leeway  
 2 Gems' weight measure



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- 3 Bring to \_\_ (finish)  
 4 Give for a while  
 5 Frolicsome  
 6 Circus performers  
 7 Tart-tasting  
 8 Meeting outline  
 9 Ltr. add-ons  
 10 Traditional fall dessert  
 11 Working hard  
 12 Person from Copenhagen  
 13 Place to store tools  
 21 Be concerned  
 22 Approximately  
 26 Campfire residue  
 27 Traditional fall beverage  
 29 "Shoo!"  
 30 Drive-\_\_ window  
 31 Source of sink suds  
 32 Dressed (in)  
 33 Seep  
 34 Castle surrounder  
 35 Comic strip scream  
 39 Internet locations  
 42 Supply-and-demand sci.  
 43 Ocean east of the US  
 45 Explorer \_\_ the Red  
 46 Hanker after  
 48 Strut  
 52 Book leaves  
 53 Hula dancer's "grass" wear  
 54 Campers' shelters  
 55 Bad reviews  
 56 Skip over  
 57 Bread with a pocket  
 59 Fishing rod  
 60 Batman's lair  
 62 "That's all \_\_ wrote"

Coffee Break

