Department of

**BIOCHEMISTRY** 

Volume 1, Issue IV December 2012

# THE [CATALYST]



#### Hillgart

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Did we miss someone? Please let us know via email asuchanek@hsc.wvu.edu

### [News & Announcements]

Congratulations to Lisa Salati, Brad Hillgartner, and Bill Wonderlin, who were all recognized for 20 years of service to the department at a recent ceremony at the Alumni Center. Thank you for all that you do!!

Congratulations to **Christy Ku**, who completed the PhD portion of her MD/ PhD on November 15<sup>th</sup>, 2012. Her dissertation was titled *Rescue of Inherited Retinal Degeneration Associated with Aipl1 Defects.* Christy will now complete her 3<sup>rd</sup> and 4<sup>th</sup> years of medical school with a continued interest in ophthalmology. Congratulations Dr. Ku!!

Congratulations to **Holly Cyphert!** Holly defended her doctoral dissertation on Friday November  $16^{th}$  2012, titled The Nutritional Regulation of FGF-21, A Novel Anti-Diabetic Hormone. She has accepted a post-doctoral position at Vanderbilt University where she will be studying the regulation of islet beta cell function. Good luck in Nashville, Dr. Cyphert!!

Congratulations to **Ben Cieply!** Ben defended his doctoral dissertation titled The Transcription Factor Grainyhead-like-2 is a Novel Suppressor of the Epithelial to Mesenchymal Transition, on November 26<sup>th</sup>, 2012. He will be conducting his post-doctoral work on the role of ESRP and mRNA splicing in EMT, cancer, and iPS cells. Congratulations Dr. Cieply!!

Have an announcement or news story? Submit it to asuchanek@hsc.wvu.edu.

### [Chair's Corner]

Every month there are a few very exciting moments in the Department. This past month's excitement was provided by three senior graduate students, who successfully defended their dissertations in the few days around Thanksgiving. Christy Ku, a Neuroscience graduate student working with Vishy Ramamurthy, Holly Cyphert, a Biochemistry and Molecular Biology graduate student working with Brad Hillgartner, and Ben Cieply, a Cancer Cell Biology graduate student working with Steve Frisch, publicly presented and defended their dissertations and then passed their final hurdle, the private defense with their respective

dissertation committees. Holly is packing her bags to move and pursue her postdoctoral studies with Roland Stein at Vanderbilt University. Ben is finishing a few things in the lab prior to his move to Russ Carstens' lab at the University of Pennsylvania. Christy is preparing to enter the third year of the medical school curriculum at WVU, which is the next stage in her studies as an MD/PhD student. All have done a wonderful job and will be missed! We are very proud of you! Congratulations Drs. Ku, Cyphert and Cieply!!

-Mike

### [Humanity on the Fritz]

### By Zach Hartman

Nationalism will do some strange things to the ethics of a person. Science is not exempted from this idea, though we like to play unbiased. It's a force that gave us some of the finest works of art and science. We living in modern society understand this idea. It is internalized in most of us, as if the idea has been around forever. It is why it makes sense to us that a man would on one hand save the world from disaster with his science and then turn around and create one of the most horrific weapons in modern history. It would also take an immeasurably talented scientist. That man was Fritz Haber, and his story is a doozy.

Science is no stranger to tragic stories. Rosalind Franklin was snubbed for her contributions to modern science. Henrietta Lacks's disease was the unwitting beginning of modern cell biology. Marie and Pierre Curie were killed by the elements they discovered and characterized. For my money, these all pale in comparison to the story of Fritz Haber. He discovered the aptlynamed Haber process, the synthesis of nitrogen and hydrogen into ammonia. It may not sound like much, but this process single-handedly revolutionized agriculture and spared developing countries the disastrous famine predicted as inevitable by Thomas Malthus in the early 19<sup>th</sup> Century. Synthesized ammonia is the foundation for fertilizer, even today, and it accounts for a massive portion of the crops that we grow and eat.

But it was nationalism that fueled Haber's innovations, not a sense of altruism. This is why he threw himself into work weaponizing poison gases during World War I, specifically chlorine. Profound disgust with his work in this field led to his wife's suicide on the morning of Fritz's departure to oversee a chemical warfare on the front (he still went, leaving behind his grieving thirteen-year-old son).

And then came the Nazis. Can you guess

Fritz Haber's heritage? I'm sure your answer of "Jewish" was a wild stab in the dark, and you are correct. Some conflict arises about whether Haber sensed his imminent ousting or whether he quit his university position in reaction to the initial persecution of Jewish scientists. Regardless, his dogged nationalism could not weather the storm of Nazi ideology. He died in 1934 of poor health, estranged from his beloved home.

Haber's work in poison gas was not single-mindedly for the deficit of humanity, though. He formulated a cyanide-based compound that was used as an effective fumigant and pesticide for years. Unfortunately, in one final twist of fate, this was the same gas modified and used to execute Jewish prisoners in the Holocaust death camps, much of Haber's remaining family among the victims. Happy holidays!

### [Jess Hall: Peptide Blonde]

By Amanda Suchanek



As graduate students, we generally spend more time in our labs than we do in our homes. I remember when, during orientation week four years ago, Dr. Minnear stressed to all of us the importance of the 'work hard, play hard' philosophy. One person who lives by this is my fellow fourth year, Jess Hall. During the week (and most weekends, too), Jess can be found working in lab, helping with the I<sup>st</sup> years Cell Methods course, or coordinating activities and events for the Cell Biology Training Program.

You might be asking yourself, "what about the 'play hard' part?" To that end, less is a member of Morgantown's first and only flat track roller derby league, the Morgantown Roller Vixens (MRV). The mission of MRV is to provide an outlet for competition, athleticism, and camaraderie to the women of Morgantown and the surrounding area while promoting the sport of flat track roller derby.<sup>1</sup> less plays the position of blocker, which "basically means I get in people's way and knock them down (sort of like in lab)."

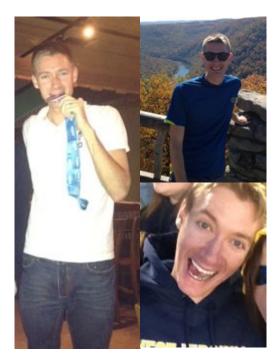
The MRV competes in bouts with other leagues throughout the area. Most recently they competed at the River Valley Riot in Wheeling. After losing their first bout, a nail biter, to the Beckley Area Derby Dames (56-63), they came back with a decisive victory against the Hades Ladies of Marietta, OH (206-96). Then played Heart of Appalachia Roller Derby from Charleston, WV, and won again (119-145), placing fifth overall. Next up for Jess and the Vixens is a home bout, the Jingle Brawl, on December 15<sup>th</sup> at Mylan Park. Come on out and cheer one of our own!

<sup>I</sup>Source:

www.morgantownrollervixens.com



### 10 Things you didn't know about <u>Travis Cyphert</u>



#### The Basics:

**Title:** Graduate Student **Lab/Office:** Salati Lab

**I. What was your very first job?** Trader Horn

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

The weather/climate. I am actually the official weatherman of the Salati lab.

### 3. How many languages can you speak?

I speak Wookie, does that count?

### 4. What is your favorite season and why?

Any season but summer...As it gets cold you can always put more clothes on and go for a run. There is only so much you can take off during the summer months and it's still too hot!

#### 5. Worst movie of all time?

Any movie that is a musical, especially because they make my wife start singing really loudly.

### 6. Have you ever met anyone famous?

World-class runner and former USA 10K record holder Chris Solinsky.

**7. What are you most afraid of?** Your MOM...haha

### 8. What would you say is your greatest achievement?

Running my first marathon in under 3 hours...2:53:51.

### 9. How do you take your coffee/ tea?

Dark roast coffee (Caribou Obsidian is amazing) with Irish crème creamer.

### I0. What is your favorite type of beer?

IPAs...specifically Founders Red's Rye IPA.



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the [Catalyst] Spotlight is chosen by random draw each month using the department directory.

## [Newsday Crossword]

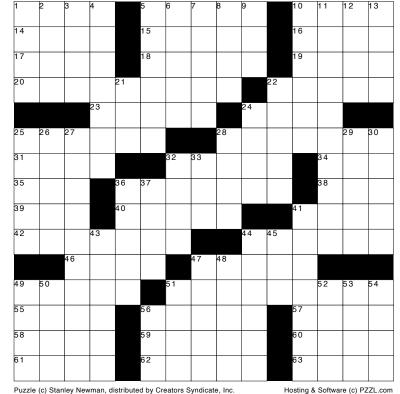
12/03/12 PASS THE PEAS Gail Grabowski, edited by Stanley Newman

#### Across

- 1 Baseball hats
- 5 Like a knife's edge
- 10 Minor quarrel
- 14 Offended
- 15 Loses color
- 16 Sport on horseback
- 17 Two-tone cookie 18 Bit of land in the
- ocean 19 Underground plant
- part
- 20 Time between salary checks
- 22 Waist circlers
- 23 Canonized person 24 Prepare, as a gift
- 25 Andy Warhol genre
- 28 Stayed out of sight 31 At the drop of \_\_\_
  - (quickly)
- 32 Sound like a bull
- 34 Top playing card
- 35 Sharp knock
- 36 Wild West bars
- 38 Thumbs-up vote
- 39 Before, in poems
- 40 Apply, as pressure
- 41 Sign of sorrow 42 Ruby or crimson
- 44 Rosebush stickers
- 46 Barnyard oinkers
- 47 Sharply inclined
- 49 Untrue
- 51 Portable electricity source
- 55 "That's too bad!"
- 56 Police-car wailer
- 57 Pressing appliance
- 58 Shower attention
- (on)
- 59 Pays to play poker
- 60 Cairo's river 61 Bird-feeder food
- 62 Short-tempered
- 63 Fence opening

#### Down

- 1 Pork serving
- 2 Mystical glow
- 3 Hunter's quarry
- 4 Pays a visit to



Puzzle (c) Stanley Newman, distributed by Creators Syndicate, Inc.

- 36 Twilled suit
  - material
- 37 Woodcutters' tools
- 41 Onion or mushroom, on a pizza
- 43 Smooched
- 44 Itsy-bitsy
- 45 That woman
- 47 Separates into
- stacks
- 48 Baby bird's noise
- 49 Short-lived trends
- 50 Hand-gel additive
- 51 Cone-bearing tree
- 52 Opera solo
- 53 Young male horse
- 54 Leg joint
- 56 Occupied a chair
- With the Wind" 27 Picnic dinnerware 28 Pirate's haul
- 29 Pacific or Atlantic
- 30 Has on
- 32 Winter glider
- 33 Neither here \_\_\_

5 Enthusiasm

8 Marsh plant

9 Seattle clock

10 Jam or butter

setting: Abbr.

11 Billiards participant

7 Dole out

12 Oodles

13 Little kids

21 Corn portion

informally

24 Advise caution to

25 Used a vegetable

26 Scarlett of "Gone

22 Londoners,

peeler

6 Entertains at home

there

Ouote of the Month:

"Don't bother just to be better than your contemporaries or predecessors.Try to be better than yourself."

William Faulkner

Have you seen the Biochemistry Timeline?? Check it out on the

**Department website!** 

### **Upcoming Events**

### December 2012

Date	Event	Time	Location
12/6	Research Forum Ramamurthy Lab	4pm	Erma Byrd 201
12/11	Seminar: Dr. Emidio Pistilli WVU Exercise Physiology	l 2pm	3067 HSN
12/11	PhD Dissertation Defense Karen Hayes, Weed Lab	2pm	3067 HSN
12/11	Jazz at Black Bear Burrito Evansdale Location	6:30pm	Black Bear Evansdale
12/13	Research Forum Mathers Lab	4pm	Erma Byrd 201
12/15	Morgantown Roller Vixens Jingle Brawl	5pm	Mylan Park
12/18	Jazz at Black Bear Burrito Evansdale Location	6:30pm	Black Bear Evansdale
12/20	Research Forum Miller Lab	4pm	Erma Byrd 201
12/31	Candlelight Countdown New Years Eve Bash rmhcmorgantown.org for more info	8pm	Waterfront Events Center

### IF TV SCIENCE WAS MORE LIKE REAL SCIENCE



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