



## Hixon Writing Center moved to the Dean's tutoring program

By Sarah Marzen  
COPY EDITOR

Former peer tutors of the suspended Hixon Writing Center are now Dean's tutors for "writing", but will be paid for by the Humanities and Social Sciences (HSS) Division.

This is only an interim arrangement, according to Dean Barbara Green and Executive Officer of Humanities Cindy Weinstein. Neither Green nor Weinstein could comment on how long this interim arrangement would be in place.

"It's a great thing that they're doing this," said senior Wesley Yu, who suggested the compromise arrangement to Katz and Weinstein after hearing from Hixon peer tutors that the peer tutoring component of the Hixon Writing Center had been cancelled. "It's a bridge between the old system and the new."

No one yet knows what form the "new" system will take. The Hixon Writing Center's role in the undergraduate writing curriculum will be reevaluated next term, according to HSS Division Chair Professor Katz. Yu asked Katz and Weinstein to put a student representative on the Hixon reevaluation committee, but his request was declined.

The uncertain future of the Hixon worries some. "It's a good short-term fix to make sure writers have a resource to turn to, but I'm much more concerned with

what the program is going to look like over the next few years," said peer writing tutor Erik Madsen.

Initially, HSS faculty planned to replace the Hixon peer tutoring program by helping students themselves. However, Yu believes that peer tutoring can sometimes be more comfortable for students who might shy away from approaching busy professors.

The impetus for axing the peer tutoring component of the Hixon Writing Center was the falling value of the Hixon Center endowment, according to HSS Division Chair Professor Katz. This year, the endowment value dropped below the value of the original gift.

"Crises are sometimes a way to focus attention onto things that could be improved," said Katz. "There was concern among HSS faculty that Hixon wasn't performing the way that they wanted," said Katz. In particular, peer tutors often focused on the nuances of essay writing instead of writing fundamentals, although HSS faculty had hoped peer tutors would focus on writing basics.

Suspending the peer tutoring component of the Hixon Writing Center is a large budget saving measure for HSS, according to Yu. The Hixon Writing Center peer tutors were paid a fixed amount regardless of how many students came to see them. As Dean's tutors, these same students will get paid only when another student schedules an appointment.



Photo by Sadaf Amouzegar

A Ruddock House member stands on a ladder and grabs olives off of the olive trees on Caltech's Olive Walk using a pole fruit picker. Ruddock House picked the most olives of any of the undergraduate houses, and won dinner with President Chameau.

## Student-led Caltech iGEM project rated gold

*Project loses to MIT, but no American teams make finals*

By Sarah Marzen  
COPY EDITOR

Caltech's Internationally Genetically Engineered Machine (iGem) team won a gold medal at the iGem 2010 Jamboree, but failed to qualify as one of the six finalists. This year Caltech's team, led by senior Lucas Hartsough, tried to build a 3-D printer out of cells that produced plastic when hit by two different wavelengths of light.

iGem teams try to build new biological "machines" based at least in part on so-called "BioBricks", biological circuitry developed by previous iGem teams. All iGem teams put their BioBricks on the "Registry of Standard Biological Parts", called the registry, so that

other teams can use their products.

A major hang-up in Caltech's iGem project was a nonfunctional BioBrick from last year's UT-Austin's iGem team that Caltech's iGem team was using to stimulate plastic production in their 3-D printer. "The quality of the parts on the registry is hit or miss," said Hartsough. "This year, there was a lot of pressure to submit [Bio] bricks of high quality due to complaints about the parts on the registry."

According to senior Fei Chen, who was a member of Caltech's internationally ranked third-place iGem team two years ago, the "hit or miss" quality of the BioBricks on the registry stems from the fact that the registry are not well

regulated. "All these undergraduate teams make tons of constructs and dump them in there, but no one is willing to verify them."

Unlike most of the other iGem teams, Caltech's six-member iGem team this year worked without a faculty supervisor. Bioengineering professors Niles Pierce, Richard Murray, and Rob Phillips lent support, advice, and lab space to the supervisor-less iGem team. Hartsough used \$30,000 from the Housner Fund and \$15,000 from the Student Faculty Programs office to fund the iGem project. Caltech's iGem team two years ago worked under the supervision of Professor Christina Smolke, who funded the team using \$50,000 from her Howard Hughes Medical Institute grant.

Smolke left for Stanford the year afterwards, so Caltech didn't field in iGem team last year.

Especially given these constraints, Hartsough said he is proud of the team's project and their gold medal at the Jamboree. However, Hartsough hopes that next year's Caltech team is larger and receives even more funding and support, though no one yet has indicated interest in becoming next year's iGem team leader.

"It's silly not to compete with those other teams on the same level-- same funding, same team size," said Hartsough. "This is especially true given that we have a new bioengineering department."

Gold medals are awarded to teams that have an interesting

project idea and document their lab results well, said Hartsough. Many teams win gold medals at the iGem jamboree. Out of the teams that win gold medals within a particular category, such as "manufacturing", one team is chosen as the winner in that category. MIT's iGem team beat out Caltech's iGem team in the manufacturing category.

None of the finalist projects at the iGem Jamboree were fielded by American teams, noted Hartsough. "It's a travesty that no American teams made the finals," he said. The winning team was from Slovenia.

Details on Caltech's iGem project can be found at <http://2010.igem.org/Team:Caltech>.

Big Love scores Big

Page 2



### In This Issue

Bush on toture in upcoming memoir Page 2  
Caltech atheletes: unsung heroes Page 3

Caltech Fencing takes fourth at Ohio

Page 3



## Big Love captivates audience with excellent acting

by Yang Hu

The first image that strikes up in my mind to the words "Big Love" is that of a big happy family. Nothing can be further from the truth. Set in Italy, Chuck Mee's Big Love (directed by Brian Brophy) examines the contentions between individualism and societal pressures. The plot revolves around fifty sisters forced to marry fifty cousins in a deal that was sealed before the sisters and cousins were conceived. While the cousins are quite delighted at the prospect of having guaranteed grooms, the sisters demand freedom to make their own choices.

In reality, only three sisters and three cousins interact throughout the play, representing not only their forty seven other siblings but also different gender stereotypes. Thyona (Rebecca Lawler) represents the angry feminist, who's best characterized by New Hampshire's motto "Live Free or Die." She hatches up a twisted plan to have her sisters kill all their husbands on the wedding night. Having been part of theater for over a year, Lawler's acting skills really showed through as she gave Constantine realistic death glares that

captured the image of a harassed and angry Thyona.

Olympia (Julie Jester), polar opposite of Thyona, represents the simple-minded woman, who desires to be loved and cared for by a husband at the expense of her autonomy.

Lydia (Ketaki Panse) is the compromise between the two, who wants both her freedom to choose but who can also make concessions Lydia was also the

scribes her thirteen sons using tomatoes to emphasize her preferences. For every bad son, Bella would angrily smash a tomato to the stage floor, with such brute force, the tomato juice would splatter around in multiple direction. This comes to show how adept the actors and actresses are at portraying anger.

As time wore on, the sisters realize they cannot escape their fate and so, coordinated together



**Katti, who plays the masogynistic cousin, makes demands of Lawler, who plays the feministic sister.**

Photos courtesy of EB Brooks

only sister, who didn't kill her husband. Her act brings about a little bit of complexity at the end.

The three sisters' counterparts are Constantine (Raj Katti), Nikos (Jeff Sherman), and Oed (Luke Moryl).

Constantine, the leader of the cousins and Thyona's groom, is a spiteful misogynist, who wants no more than to fulfill his desires. Despite minimal acting experience, the skillful Katti seemed angry enough to actually tear up Thyona had he gotten his hands on her. Nikos, groom of Lydia, is willing to compromise and is more down to earth than his other brothers while Oed, the groom of Olympia, follows after his brother Constantine.

Big Love also makes good use of two side characters, Allen (Chris Dudiak) and Leah (Miranda Stewart), who brightened the scene by their humorous acts. In one act, Allen brought in a rod shaped wedding gift box, which one immediately interprets as an innuendo.

In another scene, Bella de-

scribes her frustrations in more physical ways by jumping up and down and landing forcibly on their knees. Even with knee guards, the actresses did not fake their landings, perhaps even landing a few bruises in the process.

Despite minimal props, the items used helped to portray the emotions of the characters. As the couples were wed, the bride was given cake to feed the groom. Taking this chance to get back at Constantine, Lydia mashes the cake into his face with hate. When killing their grooms, Olympia showed her dark side by pulling a twenty foot long string of red beads (intestines) from Oed's abdomen.

The ending, however, was rushed. The slight complexity of Lydia leaving Nikos alive was all resolved in one long speech given by Bella, which greatly simplifies the issue but makes the play less down to earth. Additionally, the sisters faced no punishments for murder. Talk about justice not served.

## Bush on torture: Damn right I'd do it again

By Brandon Cornella

CONTRIBUTING WRITER

Former President George Bush's memoir hasn't even hit shelves yet, and it's proving to be just as controversial as his presidency. Among the various lines that have leaked out, perhaps the most contentious are his remarks on authorizing the torture of Khalid Sheikh Mohammed. When asked by the Director of the CIA officials if they could waterboard KSM, Bush replied "Damn right". When asked later on about it he said "Yeah, we waterboarded Khalid Sheikh Mohammed. I'd do it again to save lives". While the use of torture during the "war on terror" has been well publicized, the admission that he personally authorized torture is newsworthy. The matter-of-fact manner in which Bush stated it indicates that he does not feel guilty or accountable for his actions, though they are illegal under both US and international law.

The Geneva Conventions, the set of treaties that govern the practices of wartime actions have been ratified by 194 countries. They address the rights granted to prisoners of war and the treatment of civilians and medical personnel. The worst violations, or "grave breaches" include the "willful killing, torture or inhuman treatment" against prisoners, and under a 1996 US law are classified as "war crimes". One of the tortures techniques specified under the Conventions is waterboarding. Waterboarding is the practice of holding down the victim while pouring water onto their face and into their nose and mouth, in order to convince them that they are drowning. Waterboarding has been used against Khalid Sheikh Mohammed 183 times as well as on several other captured combatants. CIA documents later stated that he "made up stories" in order to avoid further near-death experiences.

The previous administration has stated that "the United States does not torture", but what they meant was "it doesn't count if we do it". During both the Spanish-American War and the Vietnam War, the US found their own soldiers guilty of waterboarding and suspended or discharged them. After WWII, the United States convicted Japanese military personnel for war crimes that included waterboarding and punished them with 15 years of hard labor. Had these crimes been committed against American citi-

zens, there would have been some legal ramifications. In 1983 when a sheriff from Texas used waterboarding to obtain confessions, he was sentenced to a decade in prison. The Department of Justice seemed to consider waterboarding a crime if performed by foreigners on American citizens, when performed by Americans on other Americans, but not when performed by Americans on non-Americans. While waterboarding is now explicitly classified as illegal torture, but no efforts have been put into place to investigate those people responsible for its implementation.

Though several ex-leaders have been put on trial in international court for crimes they committed, fewer still have been tried by their own countries. Not until recently, in 2009, has a former head of state been extradited, convicted, and sentenced for committing a grave crime. Alberto Fujimori, former President of Peru, was convicted of human rights violations committed while combating domestic terrorism. Though the US recognizes international law, the International Criminal Court has no jurisdiction to punish American officials. So the only way for those that violated the law to be held accountable for their actions is for American courts to take charge.

Bush's remorseless admission of violations of the Geneva Conventions sets a dangerous precedent. Even though the Attorney General and President Obama have classified waterboarding as torture, so far no former Bush officials have been prosecuted. Presidents have a history of not investigating their predecessors, for fear of having their own decisions scrutinized once they leave office. This is an unwise decision. America was founded on the notions of equality and equal treatment under the law, this includes our leaders. It is one thing to violate the principles of the Constitution in an effort to "protect" those very same freedoms. It is quite another to brazenly flaunt your violations in front of the American people. I hope that perhaps the Obama administration would reconsider its stance on investigating human rights violations committed during the "war on terror". To ignore it would be to enable future presidents to abuse their presidential power without fear of legal consequences. Holding every one of our citizens accountable is fundamental to restoring the United States as a beacon for justice in the world.

### The California Tech

Caltech 40-58, Pasadena, CA 91125  
advertising e-mail: [business@caltech.edu](mailto:business@caltech.edu)  
editorial e-mail: [tech@caltech.edu](mailto:tech@caltech.edu)

Editor-in-Chief  
Tina Ding

Copy Editor  
Sarah Marzen

Layout Editor  
Hanna Liu

Sports Editor  
Amol Kamat

Business Manager  
Chris Bilinski

#### Staff

Sadaf Amouzegar  
Deboki Chakravarti  
Sandhya Chandrasekaran  
Yang Hu  
Casey Jao  
Stone Jiang  
Rebecca Lawler  
Monorina Mukhopadhyay  
Joel Nikolaus  
Pradeep Ramesh  
Neha Samdaria  
Jonathan Schor  
Stanford Schor  
Julia Su  
Gloria Tran  
James Wu  
Vivian Yang  
Caroline Yu  
Wesley Yu  
Jenny Yung  
Chris Zheng

Circulation  
Arjun Ravikummar

Advisor  
Tom Mannion

The Tech is published weekly except during vacation and examination periods by the Associated Students of the California Institute of Technology, Inc. The opinions expressed herein are strictly those of the authors and advertisers.

Letters and submissions are welcome; e-mail submissions to [tech@caltech.edu](mailto:tech@caltech.edu) as plain-text attachments, including the author's name, by Friday of the week before publication. The Tech does accept anonymous contributions. The editors reserve the right to edit and abridge all submissions for any reason. All written work remains property of its author.

The advertising deadline is 5 PM Friday; all advertising should be submitted electronically or as camera-ready art, but The Tech can also do simple typesetting and arrangement. All advertising inquiries should be directed to the business manager at [business@caltech.edu](mailto:business@caltech.edu). For subscription information, please send mail to "Subscriptions."



## Caltech fencing takes fourth at OSU tourney

By Jonathan Schor  
STAFF WRITER

It was a brisk day in Columbus, Ohio when the Caltech fencing team, along with coach Michael D'asaro Jr., arrived at Ohio State University (OSU) to compete in their first tournament of the season. The tournament, which spanned the days of November 7 and 8, consisted of four NCAA teams and a host of other club teams, all from colleges around the United States.

Ideally, each NCAA team is expected to have six sub-teams of at least three fencers each. Of the six sub-teams, three are for women and three are for men. Within a gender, the three sub-teams represent the three different weapons in fencing: sabre, epee, and foil. Each weapon has its own rules and style of play, including where opponents are allowed to hit each other and with what part of the blade. In very basic terms, in epee fencers may hit each other anywhere on the body in order to score a touch, but can only score if they depress a button on the tip of their blade. Foil is similar, except that the fencers may only score points by hitting their tip to their opponent's chest. Sabre is the least like the other two, and allows hits from the waist up with any part of the blade.

The first day had each of the NCAA teams, Caltech, OSU, Cleveland State, and John Hopkins, facing each other in round-robin style pools. In the first round Caltech faced OSU, a dominant team that is ranked in the top five nationally. The men's teams took a heavy loss, but some of the women's teams, particularly women's sabre, came within one or two matches of defeating Ohio State. In the following two rounds, the Caltech team squared

off against Johns Hopkins and Cleveland State, but to no avail. Despite a number of close 5-to-4 matches, Caltech as a team ended up fourth overall.

Individually, Caltech had a number of high-performing fencers advance to a second round of top-eight fencers to determine an individual winner for each sword and gender. In women's sabre, both Laura Decker and Vanessa Burns went on, eventually taking fifth and third place, respectively. From men's foil, Eugene Vinisky ended in seventh place, following a tough match against the soon-to-be men's foil champion.

Despite their losses, the Caltech fencing team remained determined. They returned the following day to compete against both NCAA and college club teams. First came OSU, which was met with a much harder match than the previous day. Nearly every Caltech men and women's team took more victories than the day before, with the women's sabre team even defeating OSU six victories to three.

Following this, Caltech wrapped up by facing the club teams of Michigan, Michigan State, and Bowling Green. Stand-out performances in these matches include men's epee's sound defeat of Michigan, as well as women's sabre's seven-to-two domination of Bowling Green. Fencing newcomer Jeff Han won all three of his matches against Bowling Green, with an extremely impressive 5-0 defeat of the team's captain.

In the months to come, the fencing team plans to attend tournaments at UC San Diego and Northwestern, as well as Regionals at the Air Force Academy in Colorado, for those who qualify. Newcomers and veterans alike look forward to a successful and rewarding season.

## Caltech athletes defy stereotypes, are unsung heroes

By Amol Kamat  
SPORTS EDITOR

In a school dominated by all-nighters and broken dreams, it's nice to be able to turn to athletics for emotional release. Two otherwise studious Techers have done just that. I sat down with Alex Wang (ChemE) and Tuling Ma (CS), both sophomores, to learn more about them and their sports.

AK: So, Alex, you're in cross-country. What's that about?

AW: It's about running. It's about the adventure of seeing far away places. It's about the fame.

AK: So, Tuling, you're in ultimate. Tell me, how is that considered a sport?

TMA: It involves running. A lot of running. Teamwork. First day of tournament, we went 3-1. And then next day, we lost everything. Ah, forget the next day.

AK: Alex, what's your favorite music to listen to while running?

AW: Anything with a fast beat, you know, stuff like Vampire Weekend, Red Hot Chili Peppers.

AK: Tuling, what's your favorite sundae?

TMA: It's delicious. French vanilla.

AK: that's all?

TMA: I panicked. Now I know what it feels like to be one of those NFL stars.

AK: How 'bout them cowboys?

AW: I like our chances. We're doing pretty well in my backwards fantasy world.

AK: Ok, let's try some word association. When I say running, you think...

AW: life

AK: Frisbee

TMA: run

AK: Nicely done, Tuling. Chemistry

AW: benzene



Tuling Ma, left, and Alex Wang, right, show what they do best when not participating in athletics.

AK: cute

TMA: Never. Now get out. You're not welcome here.

Anyways, my point is that playing a sport at Caltech is a fun and healthy way to de-stress and become a better student. It teaches discipline, time management, and forces you to shower on a daily basis (midterms are a rough time for everybody).

Tuling and Alex are not the world's greatest athletes. They are not even the best athletes at Caltech. They will never be lauded for their athletic prowess, nor will they seek to go professional in their respective sports. Still, just having the heart to represent Caltech in athletic competition should warrant the title 'hero.' So, follow in the footsteps of Wang and Ma. You won't regret it.

Hey, you! Been to a Caltech sporting event recently? Angry that your sport has not been featured in the Tech? Think I have portrayed your team in a negative

light? Think you can do a better job than me? Then submit articles to the sports section of the Tech! Do it, or I'll be forced to write more stuff like this.

California Institute of Technology  
© Street Characters 2008



Go Beavers!



## Earn your degree in education in 12-18 months.

With more than 36 credential and master's degree opportunities, we're confident we have a program for you.

### APU offers:

- Convenient classes at 8 Southern California locations and online.
- Programs in teaching, counseling, physical education, and administration.
- NCATE-accredited programs recognized by all 50 states and internationally.
- Resources that make transferring to APU a seamless process.

Classes start five times throughout the year. Contact us today!

Call (800) 825-5278

Click [www.apu.edu/explore/education](http://www.apu.edu/explore/education)

Email [graduatecenter@apu.edu](mailto:graduatecenter@apu.edu)



AZUSA | HIGH DESERT | INLAND EMPIRE | LOS ANGELES | MURRIETA  
ORANGE COUNTY | SAN DIEGO | VENTURA COUNTY | ONLINE



## How to put together the perfect last-minute NSF application

by Sarah Marzen and Tina Ding

1. Preach stat mech on the streets of downtown LA, in between the lady with the shopping cart and the guy waiting for the alien to land.
2. Describe how you overcame the obstacle in your scientific pursuit when you got a C+ on a germination project in sixth grade
3. Remember that "paper" you wrote in high school on the applications of GFP? Remember how your teacher loved it and framed it? It's now one of your "publications".
4. Maybe none of your teachers framed any of your scientific essays, ever. You're not out of luck! Spam the grad student email lists and make deals with them. Convince them to let you do yet another positive control in exchange for a position as sixth author on their upcoming paper in Slovenian Journal of Applied Statistical Mechanics to Biophysics of the Cell.
5. Start asking your professors if they need you to do their laundry or deliver their lunch. Don't screw up their order. If you're applying to the interdisciplinary section due Monday, it's too late for this.
6. Make a list of unanswered questions in your field and ask them during class. Pretend you came up with them on your own. Find any way you possibly can to connect the class discussion to these random topics.
7. NSF loves interdisciplinary work. Curing cancer is always better when you apply group theory, and string theory would benefit from experiments on the sugar intake of E. coli.

Proposition 19:

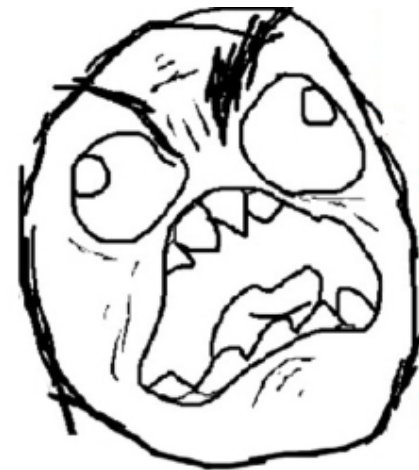
*Better  
than  
expected*

by James Wu

California's marijuana legalization measure fails



California voters have rejected Proposition 19, which would have permitted recreational marijuana use, CNN projects. Projections are based on CNN analysis of exit poll data.



DOCTOR'S  
NOTE!

This note is for: MEEEEEEEEEEEEE!!!



SICK WITH: GLAUCOMA



Chess Club Problem of the Week



White to play and mate in 4. Berg-Hargitay, Correspondence, 1991.

Last Week's Solution: 1. Rxf6 Qxf6 2. Bxh7+ Kh8 3. Qh5 Qh6 4. Nxf7 1-0

The California  
Tech  
Caltech 40-58  
Pasadena, CA 91125