

## Hard work meets hard knocks: Caltech's SUSI program

**ROD PYLE**  
Caltech Media Relations

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Caltech's students are familiar with hard work. Mastering the intricacies of quantum physics, biochemistry and other demanding fields of study can be difficult. Being able to apply this hard-won education to make an impact in the business environment outside of academia can be equally challenging — and is not a lesson typically taught inside an academic environment. The Summer Undergraduate Startup Internship program (SUSI) is designed to bridge this gap by placing talented undergraduates in their first or second summer at Caltech into 10-week internships in real-world entrepreneurial environments.

The board of Caltech's Ronald and Maxine Linde Institute of

Economic and Management Sciences worked with Caltech professors and internal departments such as the Career Development Center (CDC) to develop SUSI. The goal was to identify small startup companies that could offer undergraduates the opportunity to see firsthand how bold ideas can be translated into successful businesses or products.

"This was an experiment that has been very successful," said Jean-Laurent Rosenthal, the Rea A. and Lela G. Axline Professor of Business Economics and chair of the Division of the Humanities and Social Sciences (HSS). "Startups, as an idea, are glamorous, but they are also a lot of work. Failure rates are high, and it is a very demanding environment in which you might want some experience before deciding that it's right for you."

"Caltech undergraduates have an excellent range of summer internship opportunities outside of

traditional research labs, and many of these positions pay well and come with housing subsidies," said Michael Ewens, an associate professor of finance and entrepreneurship and one of SUSI's creators. "Startups that want to hire our undergraduates as interns often cannot compete with those offerings. The SUSI program steps in to provide a salary and housing supplement to make startup internships a possibility. This allows students to learn about startups while working inside them wearing a variety of hats."



Caltech sophomore Chen Chang works at IdeaLab, a local tech incubator.

Photo Courtesy of Lance Hayashida/Caltech

Ewens recruited firms like Idealab, a local tech incubator, and other Pasadena-based startups to participate in the program. "We identified local startups that were associated with faculty and also through contacts at local small-business incubators and the board members of the Linde Institute," he said. "Next, we screened the potential internships to insure that students would be given substantive challenges rather than narrow tasks such as programming and created a website to advertise the positions to Caltech undergraduates. Finally, we placed those students who were selected with companies that were a good fit for their skills and potential."

For this year's inaugural round of SUSI internships, five undergraduates were placed with local companies. Mentors — Caltech faculty or staff — were assigned to each student.

"It was a great experience," said Phillip An, a sophomore majoring in computer science and economics, of his SUSI placement in Idealab, started by Caltech alumnus and current trustee Bill Gross (B.S. '81). Idealab typically includes about 20 startups working in a supportive and structured environment conducive to success for new small companies.

"In a previous internship, I headed U.S. business development at a startup cofounded by a Caltech alum," An said. "At Idealab, I had the opportunity to start and run a real company. In this experience, I was able to rotate through a variety of functions including product design, project management, raising venture capital funding and actually reaching out to and interacting with our customers.

My tenure at Idealab seemed like a whirlwind, engendering opportunities to get my hands dirty in product management, software engineering and mobile app creation, to name just a few. I believe this program has given me opportunities few undergraduate students can experience."

SUSI combines the strengths of HSS, the Linde Institute, Caltech's Office of Technology Transfer and Corporate Partnerships, the CDC and the Entrepreneurship Club. The Linde Institute provides conduits to startup businesses through its board members. The institute, a hub for interdisciplinary research in business and economics, provided the funding to support the students during their internships.

Ewens is still evaluating the results of the first year of SUSI internships. Tracking the progress of the participants post-graduation helps refine future efforts. But it is clear, he said, that the program worked as planned. "It's still early in the process, but I think the students were provided a unique opportunity to explore the activity of an entrepreneurial firm," he said.

Ewens noted that placing students in the real-world environment of a startup helps them appreciate the broad number of options that they have as Caltech graduates. "I often tell students that a big part of college is simply figuring out what they do not want to do in life," he said. "They can only achieve this goal by trying out as many opportunities as possible while still in school. My hope is that SUSI can enable this for a select group of entrepreneurially inclined students each year."

### News briefs from around the globe

*A brief list of events from the past week, compiled by the editors*

#### North Carolina pastor talks man out of mass shooting in church

67-year-old Sylvester Loving convinces armed man to give up gun, be peaceful [CNN]

#### San Diego twins born in different years

3-minute difference in birth time leads to births at 11:59 p.m. and 12:02 a.m. [CNN]

#### The Force Awakens surges to second highest grossing film of all time

\$740M in 19 days has film within \$20M of Avatar for highest grossing of all time [NBC]

#### Mexican Mayor shot dead within 24 hours of taking office

\$29,000 hit placed on Gisela Mota by "Los Rojos," who promised to end organized crime [LA Times]

#### Armed protestors occupy US wildlife building

150 armed civilians occupy Orgeon wildlife building, protest extended sentences in arson cases of two local farmers [BBC]

#### Saudi Arabia cuts diplomatic ties with Iran

48-hour window was given for all diplomats to leave country [TIME]

#### Suicide bombers strike former US military base

12 Iraqi security members killed, ISIS claims responsibility [BBC]

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## ASCIT Minutes

(most recent was at the end of last quarter)

### ASCIT Board of Directors Meeting

Minutes for 1 December 2015. Taken by Phillip.

**Officers Present:** Nima, Sean McKenna, Phillip An, Jay Pelekar, Kalyn Chang

**Call to Order:** 12:07 pm

**Guests:** None

### President's Report (Nima):

- Finals week is next week – decompression will happen soon
- No meeting next term
- Will inquire about rotation survey
- Next Monday -- Faculty Board Meeting will discuss programs for visiting undergraduate students and the Caltech Postdoc Association

### Officer's Reports:

- **V.P. of Academic Affairs (ARC Chair: Jay):**
  - Student - Faculty will happen December 7<sup>th</sup>
    - Email will be sent out soon
- **V.P. of Non-Academic Affairs (IHC Chair: Cat):**
  - Absent
- **Director of Operations (Sean):**
  - Lockers will be assigned to clubs
  - Lights will be ordered for interhouse season
  - **If you have any ASCIT property (particularly spiderboxes or lights), please return it to Sean**
- **Treasurer (Kalyn):**
  - Houses should complete multi-house events before break
- **Social Director (Robin):**
  - Absent
- **Secretary (Phillip):**
  - Meeting with Joe Shepard tomorrow
  - ASCIT/IHC Lunch at the President's Lunch this Saturday – email will be sent out
  - ASCIT retreat – Doodle Poll will be sent out

If anyone has any questions or concerns about a section of the minutes please email the appropriate officer. We are happy to answer any questions.

**Meeting Adjourned:** 12:31 pm

Caltech's literary and visual arts magazine, **Totem**, is having a **contest** with a "dreams" theme, which can be interpreted however you'd like.

All literary and visual art is eligible; the deadline is Friday, **Jan. 8**. Questions and submissions should be sent to **totem@caltech.edu**.

### REMINDER FROM COUNSELING CENTER:

## Meditation Mob

(drop-in mindfulness meditation group)

Meets every Tuesday,  
12:00-12:50 p.m.  
Bottom floor of Winnett

### The California Tech

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## Record day nets women's basketball win at Crossroads

**GOCALTECH.COM**  
Actual Sports Content Editor

ST. BONIFACIUS, Minn. (Dec. 30, 2015) – The Caltech women's basketball team scored a program-record 98 points in a commanding victory over Crossroads College, 98-44, on Wednesday evening to cap the Beavers' two-game Minnesota trip.

Caltech's 98 points were its most since scoring 83 against Arizona Christian College in 2011, while the Beavers' 27 assists, 37 field goals and 19 rebounds against also set new marks. Caltech outshot Crossroads 53-33 percent from the

field, 36-25 from beyond the arc and 73-0 from the free throw line while recording a +39 rebound margin and outscoring Crossroads 50-12 in the paint.

Freshman Elizabeth Eiden led the team with 25 points on 9-of-10 shooting to complete a breakout two-game trip in which she averaged 21.0 points, 8.0 rebounds, 4.5 assists, 2.0 steals and 1.0 block while shooting 74 percent from the field. Junior Kate Lewis posted her fourth double-double of the season with 22 points and 13 rebounds, adding seven assists and three steals. Junior Michelle Wong poured in 20 points, hitting five

three-pointers on nine attempts, and rounded out her line with seven rebounds, four assists and three steals. Senior Stephanie Wong chipped in 16 points and freshman Nika Haleftiras netted 13 with seven boards, five assists and two steals. Freshmen Madeline Schemel and Madelyn Stroder came off the bench to provide eight and four rebounds, respectively, with each also notching an assist and steal.

Caltech improves to 2-6 on the season with one non-conference game remaining, while Crossroads falls to 0-9.

## Eiden, Wong shine in tight road battle at Crown College

**GOCALTECH.COM**  
Actual Sports Content Editor

ST. BONIFACIUS, Minn. (Dec. 29, 2015) – Freshman Elizabeth Eiden exploded for her first career double-double and senior Stephanie Wong drained another seven three-pointers in a season-high 25-point outburst as the Caltech women's basketball team took a well-contested 77-71 loss at Crown College on Tuesday evening.

Crown held a three-point lead at halftime before the Beavers turned the tables with a dominant 20-12 third quarter, but the hosts would rack up a 29-18 edge in the fourth to claim the victory.

The teams traded baskets over the opening three minutes preceding a four-minute scoreless stretch for the Beavers which saw Crown jump ahead, 11-6. Junior Kate Lewis scored eight of the Beavers' 15 points in the quarter, pulling Caltech back within one at 11-10. A layup by freshman Nika Haleftiras put Caltech in front and Wong regained

the lead with her first trey of the game following a Crown triple, but the hosts hit another three at the buzzer to take a 17-15 lead into the first break.

Junior Michelle Wong immediately regained the edge with a dagger three-pointer, but Crown sank its fourth straight trey and added a jumper to move back ahead, 22-18. The foes continued to trade off the lead, but a 10-point flurry over the last three minutes of the quarter gave Crown the three-point margin at halftime.

Lewis opened the third quarter with a layup to make it a one-point

game, but Crown extended the lead to six at 42-36 with 7:11 on the clock before Caltech really got going. Over the next four minutes, the Beavers amassed an incredible 17 points to a mere two for Crown to surge ahead by nine, 53-44. Crown managed to claw back four points at the end of the quarter, but Caltech still led by five going into the final 10 minutes.

The Beavers maintained the lead almost right to the end, with Crown quickly making it a one-possession game but unable to get over the hump until tying the game at 67-67 with 2:02 remaining. The hosts would attempt an absurd 20 free throws in the final 6:22 of the game, hitting 15 to help take a seven-point lead with just 11 seconds remaining. Stephanie Wong did all she could to keep Caltech in it, knocking down a pair of free throws before drawing a foul on a three-point attempt and hitting both to move back within three at 74-71, but Crown iced the game going 3-for-4 from the line.

Stephanie Wong posted her third 20-point effort of the season and first in five games since opening the season with back-to-back 24-point performances. Her seven three-pointers tied her own single-game program record, which she has accomplished three times in her career.

Eiden posted career highs in points (17), rebounds (10) and assists (four) while shooting a season-best 62 percent from the field and adding two blocks and a steal. Lewis tallied 15 points on 6-of-10 shooting to go with a season-high five assists, three boards, two steals and a block while Haleftiras and Michelle Wong combined for 14 points, six assists and five steals in the backcourt.

## Cahill, Kawashima make impact off bench against UW-La Crosse

**GOCALTECH.COM**  
Actual Sports Content Editor

PASADENA, Calif. (December 29, 2015) – Freshman Brent Cahill and sophomore David Kawashima provided a spark off the bench as the Caltech men's basketball team lost to the University of Wisconsin-La Crosse, 72-49, on Tuesday night. UW-La Crosse improves to 6-5 while Caltech drops to 2-7.

Not even two minutes into the game, Caltech's assists leader, junior David LeBaron, recorded two quick fouls, forcing him to sit out the rest of the first half. His absence was felt immediately, but even that was exacerbated as Kawashima was whistled for his second foul at the 8:12 mark. The offense struggled for consistency, shooting just 26 percent from the field and going into halftime trailing 39-19.

The Beavers came out with renewed energy in the second

half, going on a 14-2 run with nine minutes left to pull back within 11 with a surge of momentum behind them. Unfortunately for Caltech, the Eagles went on their own 11-5 run to quash that momentum and end the chances of a comeback, icing the game with nine points in the final 1:30.

Kawashima and Cahill combined for 20 of Caltech's 49 points. Cahill attacked the basket aggressively as usual, getting to the free throw line 10 times, but hitting just five of his chances. Juniors Nasser Al-Rayes and Ricky Galliani recorded seven points and eight rebounds in only 21 minutes of play. Senior Kc Emezie picked up six rebounds and dished out four assists.



"Look, I don't have the ball. I threw it over there." – Stephanie "Hydration Station" Wong

Photo Courtesy of Bob Paz



I thought the defender was supposed to try to block the shot, not duck.

Photo Courtesy of Bob Paz

## Lewis explodes for 19-19 double-double versus La Sierra

**GOCALTECH.COM**  
Actual Sports Content Editor

PASADENA, Calif. (Dec. 20, 2015) – Junior Kate Lewis exploded with a season-high 19 points and career-high 19 rebounds for her third double-double of the season in the Caltech women's basketball team's defeat to La Sierra University on Sunday afternoon.

The Beavers narrowly outshot the Golden Eagles but generated nine fewer shots and went just 8-for-20 (40 percent) from the free throw line, allowing La Sierra to leave with a 56-51 victory.

La Sierra hit the first bucket of the day but Caltech scored eight unanswered points to take the lead thanks to senior Stephanie Wong, who rediscovered the long-range form that saw her open the season

as the nation's three-point leader. Junior Michelle Wong joined the fun with a trey of her own to maintain the six-point lead before La Sierra leveled the game at 11-11. The Beavers locked down on defense to force three turnovers in the final two minutes while netting five more points to hold a 16-11 lead after the first quarter.

Caltech went the first four minutes of the second quarter without a basket but held La Sierra to nine points to remain within one possession when Stephanie Wong drilled another three-pointer to tie it up at 20-20. Freshman Nika Haleftiras hit a key jumper to cancel out a La Sierra score and give Lewis the chance to take over. The junior forward converted a three-point play after grabbing an offensive rebound and added

a layup on the next possession to stake the Beavers to a five-point lead with 3:40 left in the half. A late layup and pair of free throws allowed the Golden Eagles to tie the game at 29-29 heading into the break, however.

La Sierra immediately took the lead to start the third quarter and posted a 6-2 run over the first four minutes, but Caltech responded with resounding defensive effort to hold the Golden Eagles scoreless over the next five minutes and take a four-point lead at 39-35. The margin held through the final break as the teams traded baskets for a 41-37 Caltech lead heading to the fourth quarter.

After the visitors had hit just one of 18 three-point attempts over the first three quarters, La Sierra nailed two in the first two-

and-a-half minutes and would sink a third in five attempts three minutes later to take the 50-47 lead at 4:57. The Golden Eagles added a jumper to go ahead by five with 3:03 remaining before Lewis dished to freshman Madeline Schemel to pull back within one basket just under the two-minute mark. A missed jumper and turnover on the ensuing two possessions forced Caltech to resort to sending La Sierra to the free throw line. Wong hit a free throw to make it 54-51 with 12 seconds remaining, but La Sierra sank two points at the other end to seal the win.

In addition to her 19-19 double-double, Lewis filled out the box score with four blocks, four steals and two

assists. Stephanie Wong totaled 13 points, including going 4-for-9 from beyond the arc, while Michelle dished out four assists. Schemel added eight points and two blocks, with Eiden grabbing eight boards.

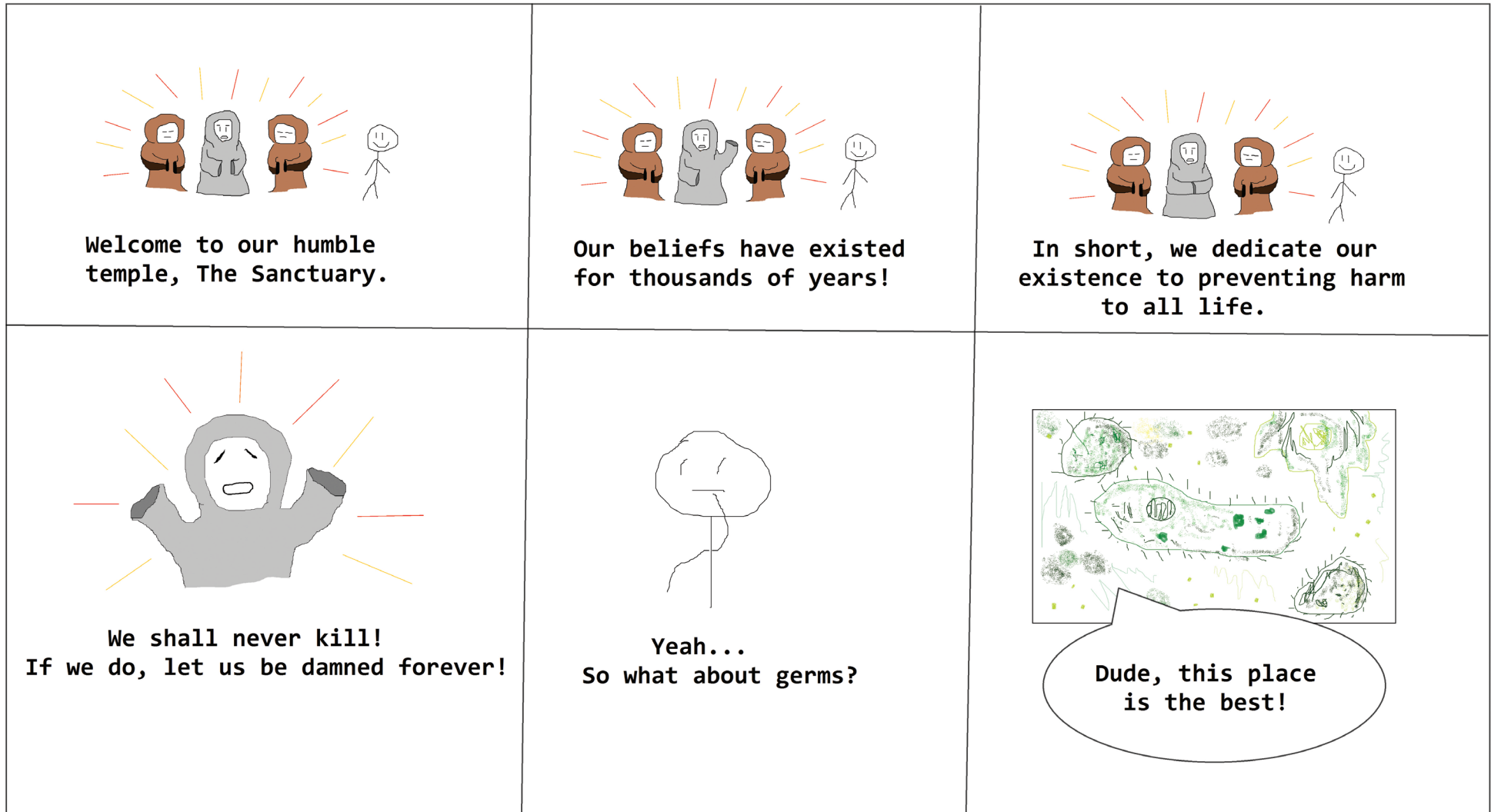


Should I be concerned that our women's basketball players keep exploding? That can't be healthy.

Photo Courtesy of Bob Paz

## The Sanctuary.

Niva.



## The "Stranger" in the Green Hat

Niva.

