

Timmy C. Trashes Trailer Tech

By ADAM CRAIG with research by KENNETH HEATHEFIELD

5:00PM, July 10, 2005, California Institute of Technology, Pasadena: To the untrained eye, it might have appeared that the panhandlers and cart pushers who usually line Lake St. had invaded the campus en masse. Scruffy-chinned wandering souls in threadbare T-shirts and ragged pants pushed their worldly possessions before them under the baking Summer sun, but this was no mere drifter's jamboree. For the first time since their construction circa 1931, the South Houses, where generations of Caltech undergraduates had toiled long into the night on homework sets, eaten CDS food, complained about CDS food, slept, partied and browsed for pornography, closed for renovations. Some day, in a future too distant to imagine, away will fall the scaffolding, and the South Houses will rise anew, a shining sanctuary for the bulbous-headed, levitating undergraduates and their pet gel capsules. But, for their present-day predecessors, the renovations mean but one thing: alternative housing. Although some found housing off campus, many more found themselves in modular housing, or, as the students affectionately dubbed it, South Trailer Park or some abbreviation thereof. The Summer students, some from Caltech, others imported from other universities on SURFs, were the first tenants of these boxy abodes, and they expected that housing, having already rolled back the opening date from June 26 to July 7, then from July 7 to July 8, would have the trailers ready to support Caltech students in the lifestyle to which they have become accustomed.

Such optimism soon proved foolhardy when the Summer students found themselves living in sixteen six-room boxes, each with a central bathroom that might or might not have hot or cold running water. Yet, judging from the belly-up cockroaches that littered the floor of the Student Activities Center when it was open, Techers are the hardier of the two species, and the flourishing ant population was proof that even this barren environment could support life. In the absence of working stoves, the stalwart students fell back on the traditional dietary staples of take-out and microwaveable sandwich pockets. The wet look became the latest fashion craze when the trailer park set discovered that the washing machines functioned but the dryers had plugs incompatible with the trailers' wall sockets. Even the restriction to only two working telephones in the trailer park was but a minor inconvenience for most.

But one hardship was too much to bear: the trailers had no internet connection. Without email, communication with the outside world, between students and their professors or SURF supervisors and even from student to student required that trailer folk make the trek to the nearest pay telephone or to Avery's computer lab. Without FTP, SURF students could only work on their projects by physically traveling to the laboratories where they worked. Without instant messaging and house email

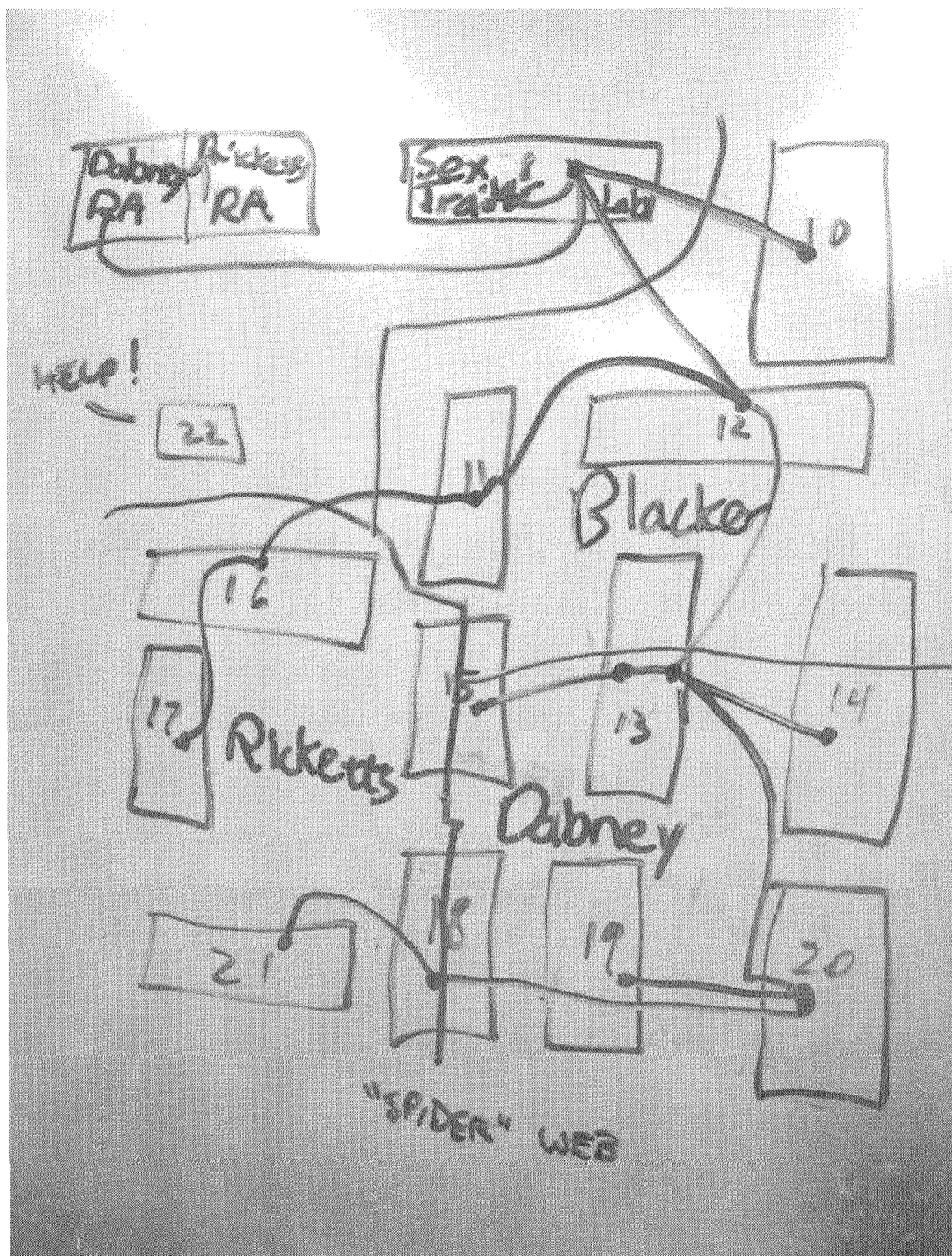
lists, the social fabric began to unravel. The inability to check the Caltech web for calendar updates made it difficult to determine the time and place of the latest MRI experiment, traditional basket-weaving performance or lecture by a wandering author, while, for want of fresh downloads, students seeking entertainment in their own rooms had no recourse but to play offline or review their old movie and picture folders.

In these trying times, a small band of undergrads pulled together to set things right. Under the leadership of Kenneth Heafield, they worked with ITS staff to plan out a secure local network. The first step was the creation of a wireless network using an old Pentium 2 300 running Gentoo Linux from the window of an Avery graduate student and a Pentium 3 running FreeBSD from Ricketts' storage room. Heafield then proceeded to recruit two more students to help buy more the four hundred meters of Cat 5 cable necessary to spread internet access throughout the trailers and recruited five other students to help crimp the ends of the cables. Soon, other students set up a, Pan With Us, wireless access point in Trailer 15 and SexNet, a Linksys WRT54G, in the multipurpose trailer. In its ultimate form, Kludgenet, as its creators named it, snaked through every trailer on the East side of Holliston, using the spacious bathrooms to house its many switches. Rare in Caltech history is the cause that has brought so many students from so many houses together without involving course credit.

All seemed well until Timothy Chang, Director of Student Housing, sent out an email demanding that the students take down their fiber-optic jungle-gym, citing the danger that someone might trip over the cables. Although the students offered to duct tape the cables to the walls, Director Chang found this solution unacceptable for aesthetic reasons, and continued to insist that "data [would] be fully installed within the next few weeks." After much debate among ITS, Student Housing and the trailer residents, including the Dabney RAs, and after the collection of 85 student signatures on a petition in support of the network, Heafield met with Vice President in Charge of Student Affairs Margo Marshak, who, after inspecting the living the trailers for herself, decided to let Kludgenet stand. Thus did the trailer students rejoice and bask in the glory of internet access, and, without fear of reprimand, Fleming then set up its own local network in the trailers across the street.

On July 22, Housing finally succeeded in setting up Real Network, the local network currently providing internet to the trailers, making Kludgenet obsolete, but we will always remember the Summer when South House Techers had to fight for their right to LAN party.

For additional details and photographs and for copies of emails concerning Kludgenet, see <http://www.ugcs.caltech.edu/~kpu/kludgenet/>



A map of Kludgenet at its height

Photo by Kenneth Heathfield

Administration Struggles to Balance Student Needs and Budget

By ZACH HENSON and JENN IOFINOVA

One of Caltech's highest priorities for this summer and the upcoming school year is to overcome a \$27 million deficit in its operating budget while maintaining the community standards that attract the level of talent for which Caltech is famous. Although administrators and students are working hard to make the upcoming budget cuts as bearable as possible, the hard choices have left many students complaining about the resulting restriction of student freedoms and social life.

The Budget Problem

Caltech has three primary sources of income: federal grants, overhead charges from federal grants and interest from the institute's endowment. Unlike many other major universities, Caltech

does not draw a large percentage of its income from tuition. Due to the small size of the student population and lack of professional schools, only about 2 percent of the institute's budget comes from tuition. Thus, Caltech's income consists largely of government grants, which can only be spent directly on research. For example, Caltech can maintain laboratories by using this overhead money, but not classrooms in the same building.

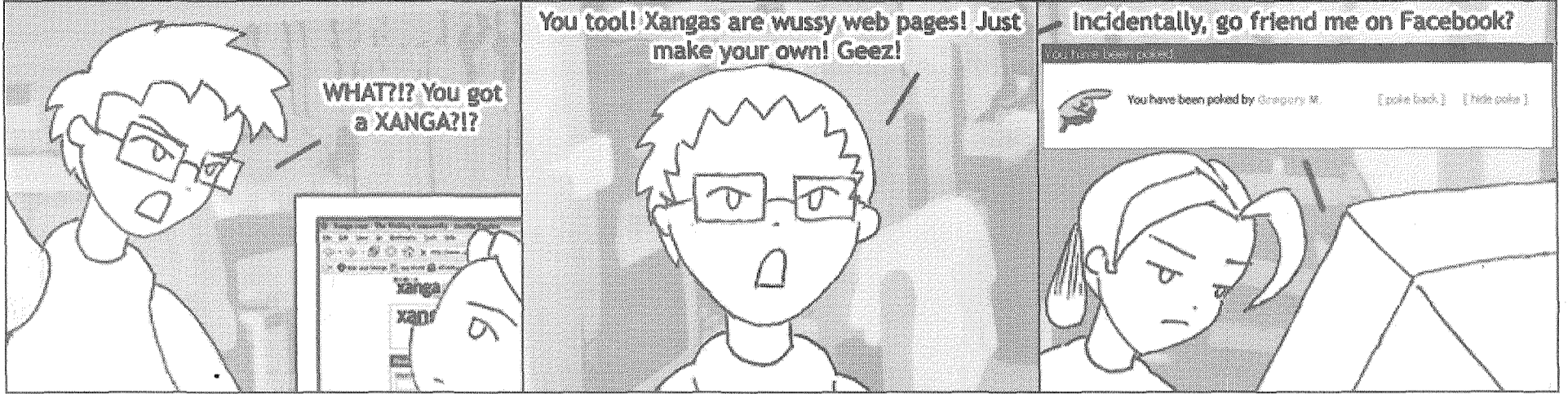
Dean Currie, Vice President of Business and Finance, sums up the problem: "Caltech is almost too successful for its own good. The institute is successful in raising money for research, but this money cannot go back to the institute for general use."

Another part of Caltech's problem is its unusually high withdrawal rate from its endowment

fund. The withdrawal rate should balance the current and future needs of the institution. In the optimal case, an institution will withdraw at the same rate the endowment grows with adjustment for inflation.

On average, most universities will withdraw about 6 percent or less from their endowment every year. Over the last ten years, however, Caltech has withdrawn about 6.5 percent from its endowment each year. This was not a simple oversight: the decision on how much to withdraw derives from the average value of the endowment over the three previous years. Unfortunately, Caltech made large withdrawals from its endowment in the late 1990's before the "tech bubble" burst, so the detriment to the endowment was greater than anticipated.

G.L.O.M. - Greg's Life of Misery



By Nathan Lau

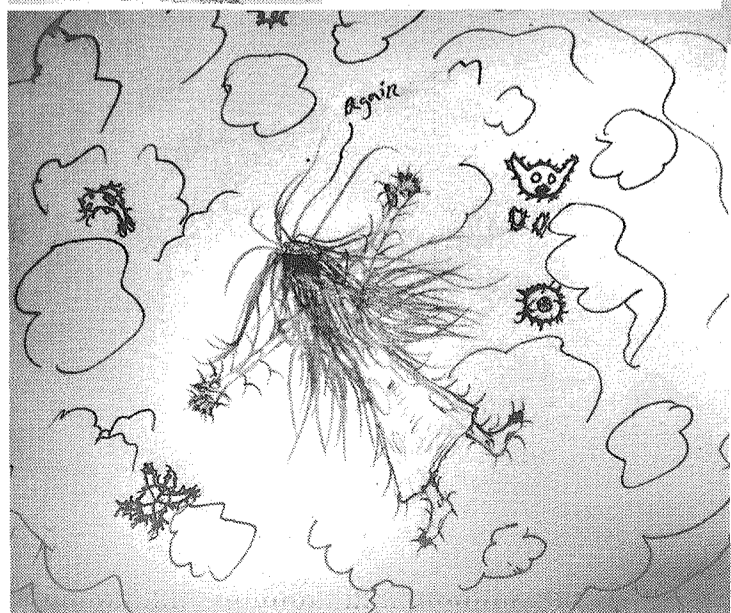
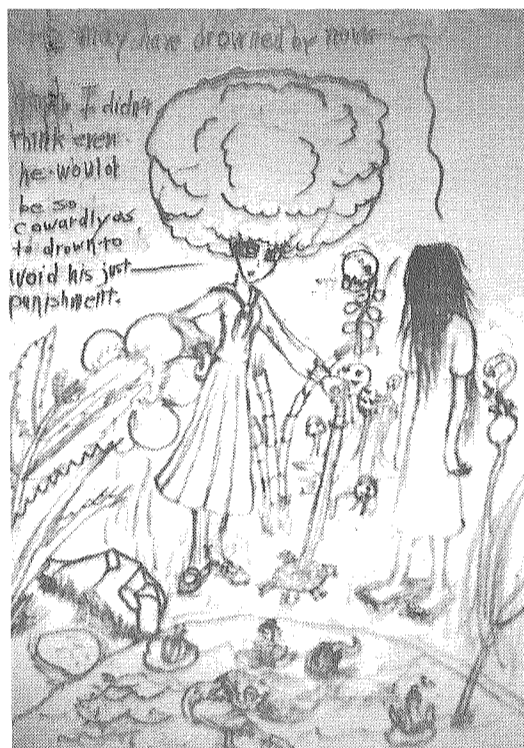
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BY ADAM CRAIG



Getting Behind the White Stripes

By CINDY KO

The White Stripes' *Get Behind Me Satan*, their follow-up to 2003's *Elephant*, starts off in quintessential Stripes fashion. On *Blue Orchid*, Jack White's way of rousing the devil pairs senselessly mad lyrics sung in falsetto with the electricity of gripping guitar riffs. (The video for this song is even stranger and more compellingly fascinating than the song itself, complete with girls in really high heels and unicorns.) In other songs, like *As Ugly As I Seem*, White reverts back to a twisted Southern folksong form-- quiet acoustic sets with meaningless rhymes slapped together. The album, like many other Stripes efforts, seems to con-

sist of this dichotomy of catchy, hard grunge and inanely written fake folksongs. Don't get me wrong; songs of this type, like *Hotel Yorba*, are what launched the Stripes to fame. At the same time, we have to consider that Jack White is a crazed, cracked-out wannabe-hick/vampire, and not everything this guy writes is gold. And Meg White? Her tacit role in the band as drummer/backup-vocalist/ex-wife is just a sideshow to her job, riding the crest of fame with Jack. Overall, *Get Behind Me* has all the right mix-in's for a strong followup album; catchy, fresh, yet still retaining the old White Stripes sound, circa *White Blood Cells*. Gems like *My Doorbell* and *Little Ghost* make this an LP worth putting on repeat. So, although Jack White's looking more and more like a child molesting corpse these days, his music continues to not be ugly like him.

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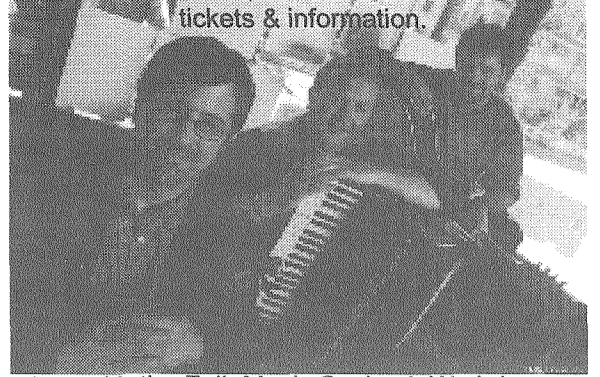
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The Caltech Folk Music Society presents a live concert with Irish group, **bohola**, at Beckman Institute Auditorium. 8PM Saturday, October 1. Student tickets \$5. Call Ticket Office at 395-4652 for tickets & information.



Volunteer with the Folk Music Society! We bring great live music to Caltech! Just a couple of hours a month! Email folkmusic@caltech.edu. Web page: <http://folkmusic.caltech.edu>

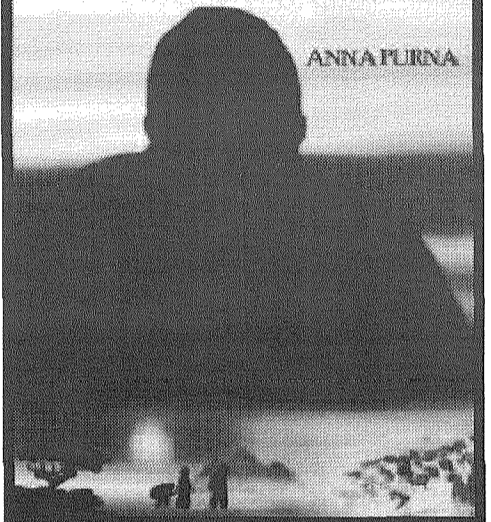
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If you have any questions or concerns regarding Rotation, please contact a member of the IHC:

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Erik Dreyer, Avery Chancellor	Avery 237	erikd@its	
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Matt Walker, Ruddock President	Ruddock 216	mattheww@its	x1488

WHEN AND WHERE TO EAT

1. Find the row with your name.
2. Look in the column for whatever day of the week it is.
3. The values found in this cell are to be interpreted as follows: [lunch house] / [dinner house] where:

Code = House Meal - Time Get from -> Go to
 AV = Avery: Lunch - 12:00 Avery kitchen -> Avery courtyard.
 Dinner - 6:00 Avery dining hall.

BL = Blacker: Lunch - 12:00 Buffet-style -> Blacker.
 Dinner - 6:05 Blacker courtyard.

DA = Dabney: Lunch - 12:00 Buffet-style -> Dabney.
 Dinner - 6:15 Chandler.

FL = Fleming: Lunch - 12:00 Buffet-style -> Flemming.
 Dinner - 6:30 the roof of Winnet.

LL = Lloyd: Lunch - 12:00 Chandler -> Lloyd dining hall.
 Dinner - 6:15 Lloyd dining hall.

PA = Page: Lunch - 12:00 Chandler -> Page dining hall.
 Dinner - 6:45 Page dining hall.

RI = Ricketts: Lunch - 12:00 Buffet-style -> Ricketts.
 Dinner - 5:50 Ricketts courtyard.

RU = Ruddock: Lunch - 12:00 Chandler -> Ruddock dining hall.
 Dinner - 6:30 Ruddock dining hall.

Dinners are an hour early on Friday, except in Ricketts, which is at 5:20.

(Interpretation in italics)

I. Preamble

The Rotation system has evolved over the years as the best method to distribute new students among the Houses. Each new student is given a voice in selecting the House he or she will join, and the Houses have some say in choosing their members. The motivation behind these rules is the Honor System. The intention is to prevent both the Houses and the new students from taking unfair advantage of any other House or new student. All undergraduates are responsible for understanding and following these rules, and just as with the Honor Code, ignorance is not an acceptable excuse for violating them. Keep in mind that the spirit of the rules is at least as important as the letter of the rules, and the IHC reserves the right to interpret the spirit of the rules as necessary.

II. Procedures

1. Rotation week begins on the Saturday prior to the first week of the term and ends after the following Saturday.
2. Throughout the course of Rotation week, new students will remain in residence at a randomly determined temporary room assignment in one of the Houses.
3. For the first seven days of Rotation week, (Saturday through Friday) each new student visits a different House for dinner in a randomly determined order. New students also visit the Houses for lunch, in an order determined by the following mapping:

	Sat	Sun	Mon	Tue	Wed	Thu	Fri	Sat
House visited at dinner:	A	B	C	D	E	F	G	N/A
House visited at lunch:	N/A	G	E	F	B	D	A	H*

* This is the House in which the new student is temporarily living.

Any new student who does not attend lunch or dinner or does not check in with the House President will be defined as a "no-show" for that House, and will be considered to have rated all eight Houses equally.

4. All new students must choose at least five of the eight Houses which they would prefer to join and submit a list of those preferences to the Resident Associate (R.A.) of the House in which they are residing. This information will be given to each House President and shall be made available only to the House Rotation chairmen, only after all changes are finalized. The Houses are not required to follow the ratings submitted by each student, except that no House may choose a student that did not rate it. Students living outside of the eight Houses must submit ratings to the R.A. of the House which they visit on the final Saturday of Rotation week. Students may be picked by any one of the Houses if they do not submit a House preference list. In exceptional circumstances, new students who state to the Director of Campus Life that they do not wish to participate in Rotation will not be selected by any House, but new freshmen are still given Institute housing.

5. On the final Saturday of Rotation week, the R.A. of each House will provide rating sheets to all of the new students dining at their House that day. From 2 to 4 PM, the R.A. will be available at a place made known to the new students. During that time, the new students must give their ratings to the R.A. The R.A. will enter the student's ratings and then confirm them with the student before submitting them. At 4 PM, the IHC will compile the list and check to ensure that all ratings have been submitted. Every effort possible will be made to obtain any missing ratings. Only the IHC will have access to the list until it is finalized. After the list is complete, the IHC Chairman will declare the list finalized, and at that time, the House Presidents may disclose the results to their House Rotation Chairmen. Information concerning whether or not a new student has rated a House (not specific numerical information) may also be disclosed to other

House members when necessary.

6. Selection of new students will take place at a closed meeting of the Inter-house Committee Chairman and Secretary, the eight House Presidents, up to four Rotation chairmen from each House, the Director of Campus Life, the Senior Administrator for Campus Life Programs, and the Master of Student Houses. The R.A.'s may attend the meeting as guests of the Director of Campus Life. This meeting will occur on the Sunday immediately following Rotation week. All information relating to this meeting will not be made public. Following the meeting, the Houses will immediately destroy all their electronic or written information relating to the meeting.

III. Regulations

1. Rotation rules are in effect for any contact with new students from their initial acceptance to Caltech (including before they matriculate) until their submitted rating lists are considered accurate (as stipulated at 5:00 pm on Saturday of Rotation week).

These rules are in full effect now and will be until October 1st, 5pm

2. Throughout these rules the term "House" refers to both the organization as a whole and any of its members.

People who could be construed as representing the House:

- a. Full House members who are currently registered as undergraduates
- b. Full House members who are not currently registered as undergraduates, but plan on coming back
- c. Social members who are currently registered as undergraduates
- d. Social members who are not currently registered as undergraduates, but plan on coming back
- e. Alumni and former students
- f. Unaffiliated students
- g. RAs
- h. Others (grad students, friends of students, non-Caltech affiliated people)

Last, First Name	Sat	Sun	Mon	Tue	Wed	Thu	Fri	Sat
Abraham, Robin	/DA	RU/BL	PA/LL	RI/AV	BL/PA	AV/RI	DA/RU	FL/
Adalian, Dvin	/PA	FL/LL	AV/BL	RU/RI	LL/AV	RI/RU	PA/FL	DA/
Akagi, Dallin	/BL	RU/LL	AV/RU	FL/DA	LL/AV	DA/FL	BL/RI	PA/
Alemi, Alexander	/BL	LL/DA	RI/PA	AV/FL	DA/RI	FL/AV	BL/LL	RU/
Anderson, Veronica	/RI	RU/PA	AV/LL	DA/BL	PA/AV	BL/DA	RI/RU	FL/
Ascoli, Andrew	/DA	PA/AV	RU/FL	LL/RI	AV/RU	RI/LL	DA/PA	BL/
Badrakhan, Yezdan Sher	/FL	PA/AV	BL/DA	RI/RU	AV/BL	RU/RI	FL/PA	LL/
Balakrishnan, Karthik	/PA	RU/AV	RI/DA	FL/LL	AV/RI	LL/FL	PA/RU	BL/
Bandyopadhyay, Tania	/LL	AV/RI	DA/PA	FL/RU	RI/DA	RU/FL	LL/AV	BL/
Barter, Rebecca	/LL	FL/BL	AV/PA	RI/DA	BL/AV	DA/RI	LL/FL	RU/
Beck, Christopher	/LL	DA/BL	FL/AV	RI/RU	BL/FL	RU/RI	LL/DA	PA/
Behn, Robert	/LL	FL/BL	DA/PA	RI/AV	BL/DA	AV/RI	LL/FL	RU/
Bermudez, Helen	/DA	RU/LL	RI/AV	PA/FL	LL/RI	FL/PA	DA/RU	BL/
Bhojwani, Ekta	/PA	LL/FL	RI/DA	AV/BL	FL/RI	BL/AV	PA/LL	RU/
Binkiewicz, Norbert	/BL	RI/DA	AV/PA	FL/RU	DA/AV	RU/FL	BL/RI	LL/
Borneman, Nathaniel	/RU	DA/AV	LL/BL	PA/FL	AV/LL	FL/PA	RU/DA	RI/
Brewington, Bruce	/AV	PA/DA	FL/BL	RU/LL	DA/FL	LL/RI	AV/PA	RI/
Bruccoleri, Alexander	/RI	PA/DA	AV/BL	FL/LL	DA/AV	LL/FL	RI/PA	RU/
Bugga, Pradeep	/AV	RI/PA	DA/RU	BL/LL	PA/DA	LL/BL	AV/RI	FL/
Burnam-Fink, Michael	/RU	RI/AV	DA/LL	PA/FL	AV/DA	FL/PA	RU/RI	BL/
Burt, Jason	/FL	RI/DA	BL/RU	LL/PA	DA/BL	PA/LL	FL/RI	AV/
Carrillo, William	/RU	BL/RI	AV/LL	DA/PA	RI/AV	PA/DA	RU/BL	FL/
Cayco Gajic, Natasha	/RI	RU/BL	LL/FL	DA/PA	BL/LL	PA/DA	RI/RU	AV/
Cerundolo, Jason	/AV	PA/LL	RI/DA	RU/FL	LL/RI	FL/RU	AV/PA	BL/
Cevallos, Marissa	/AV	BL/RI	PA/FL	LL/DA	RI/PA	DA/LL	AV/BL	RU/
Chang, Arthur	/BL	PA/RI	RU/FL	DA/AV	RI/RU	AV/DA	BL/PA	LL/
Chang, Cliff	/AV	BL/FL	RI/LL	PA/DA	FL/RI	DA/PA	AV/BL	RU/
Chao, Daniel	/FL	RU/LL	DA/PA	AV/BL	LL/DA	BL/AV	FL/RU	RI/
Chen, Justin	/LL	AV/DA	BL/FL	PA/RU	DA/BL	RU/PA	LL/AV	RI/
Chen, Kevin	/AV	RU/FL	PA/RI	LL/BL	FL/PA	BL/LL	AV/RU	DA/
Chiriack, Maria	/FL	BL/RI	LL/PA	AV/RU	RI/LL	RU/AV	FL/BL	DA/
Chiu, Rico	/RU	FL/RI	BL/AV	DA/PA	RI/BL	PA/DA	RU/FL	LL/
Chu, Lauren	/PA	BL/FL	RI/RU	DA/LL	FL/RI	LL/DA	PA/BL	AV/
Cohn, Gabriel	/BL	PA/LL	RU/FL	AV/DA	LL/RU	DA/AV	BL/PA	RI/
Conley, Michael	/LL	FL/RI	PA/AV	RU/BL	RI/PA	BL/RU	LL/FL	DA/
Cordwell, Robert	/RU	DA/FL	LL/PA	AV/RI	FL/LL	RI/AV	RU/DA	BL/
Coulson, Bud	/LL	RI/AV	RU/PA	DA/FL	AV/RU	FL/DA	LL/RI	BL/
Crook, Nathan	/RU	LL/FL	RI/AV	DA/BL	FL/RI	BL/DA	RU/LL	PA/
Cullina, Daniel	/RI	RU/LL	FL/BL	DA/PA	LL/FL	PA/DA	RI/RU	AV/
Czubakowski, Matthew	/BL	RU/RI	AV/PA	FL/LL	RI/AV	LL/FL	BL/RU	DA/
Dellatorre, Matthew	/PA	LL/BL	DA/AV	RU/RI	BL/DA	RI/RU	PA/LL	FL/
Dempsey, Christopher	/DA	AV/BL	RU/LL	PA/RI	BL/RU	RI/PA	DA/AV	FL/
Dhar, Arkya	/LL	DA/AV	RI/BL	FL/RU	AV/RI	RU/FL	LL/DA	PA/
Dinh, Vu	/RI	LL/PA	DA/RU	FL/BL	PA/DA	BL/FL	RI/LL	AV/
Dorman, Mary	/FL	AV/PA	DA/LL	RI/RU	PA/DA	RU/RI	FL/AV	BL/
Doroudi, Sherwin	/PA	LL/RI	DA/RU	FL/BL	RI/DA	BL/FL	PA/LL	AV/
Douglass, Catherine	/AV	BL/RU	FL/LL	RI/DA	RU/FL	DA/RI	AV/BL	PA/
Dubin, Andrea	/FL	DA/RI	RU/AV	BL/PA	RI/RU	PA/BL	FL/DA	LL/
Dummit, Evan	/AV	FL/RI	BL/DA	PA/LL	RI/BL	LL/PA	AV/FL	RU/
Durak, Omer	/RI	RU/LL	FL/DA	BL/AV	LL/FL	AV/BL	RI/RU	PA/
Ervin, Garrett	/PA	FL/LL	RI/DA	AV/BL	LL/RI	BL/AV	PA/FL	RU/
Feldman, Matthew	/FL	RU/RI	PA/BL	LL/DA	RI/PA	DA/LL	FL/RU	AV/
Felsen, Pamina	/DA	FL/LL	AV/PA	RU/BL	LL/AV	BL/RU	DA/FL	RI/
Fette, Nicholas	/RI	BL/AV	PA/RU	FL/DA	AV/PA	DA/FL	RI/BL	LL/
Fireman, Micha	/RI	BL/AV	FL/DA	RU/LL	AV/FL	LL/RI	RI/BL	PA/
Fogel, Alexander	/LL	RI/DA	RU/FL	BL/AV	DA/RU	AV/BL	LL/RI	PA/
Follett, Nathaniel	/RU	FL/AV	RI/BL	DA/LL	AV/RI	LL/DA	RU/FL	PA/
Fong, Zhen	/LL	DA/RU	PA/RI	AV/FL	RU/PA	FL/AV	LL/DA	BL/
Fortino, Nickolas	/FL	AV/LL	PA/RI	RU/BL	LL/PA	BL/RU	FL/AV	DA/
Fung, Jian	/LL	BL/AV	FL/PA	RI/RU	AV/FL	RU/RI	LL/BL	DA/
Galgon, Geoff	/AV	DA/RI	LL/FL	BL/PA	RI/LL	PA/BL	AV/DA	RU/
Gandhi, Amit	/DA	PA/RI	LL/AV	FL/BL	RI/LL	BL/FL	DA/PA	RU/

Last, First Name	Sat	Sun	Mon	Tue	Wed	Thu	Fri	Sat
Ganesan, Calyani	/PA	BL/RU	LL/DA	FL/AV	RU/LL	AV/FL	PA/BL	RI/
Gee, Alan	/FL	PA/AV	LL/RI	RU/BL	AV/LL	BL/RU	FL/PA	DA/
Gillespi, Aimee	/RU	PA/DA	AV/LL	BL/FL	DA/AV	FL/BL	RU/PA	RI/
Giron, Marie	/FL	RU/RI	AV/PA	BL/DA	RI/AV	DA/BL	FL/RU	LL/
Glassman, Matthew	/PA	LL/RI	BL/RU	FL/DA	RI/BL	DA/FL	PA/LL	AV/
Goto, Derek	/RU	BL/RI	AV/LL	DA/FL	RI/AV	FL/DA	RU/BL	PA/
Grau, Matthew	/DA	FL/PA	BL/AV	RU/RI	PA/BL	RI/RU	DA/FL	LL/
Grazier Gsell, Maxwell	/BL	DA/RI	LL/FL	PA/AV	RI/LL	AV/PA	BL/DA	RU/
Grewal, Sunpreet	/BL	LL/PA	FL/RI	DA/RU	PA/FL	RU/DA	BL/LL	AV/
Gulati, Abhishek	/BL	PA/FL	RU/AV	LL/RI	FL/RU	RI/LL	BL/PA	DA/
Harley, Shilo	/RU	LL/PA	RI/FL	BL/DA	PA/RI	DA/BL	RU/LL	AV/
Hartman, Kevin	/RI	BL/PA	FL/LL	AV/DA	PA/FL	DA/AV	RI/BL	RU/
Hasier, John	/BL	AV/RU	LL/PA	FL/RI	RU/LL	RI/FL	BL/AV	DA/
Hass, Amy	/BL	AV/FL	RI/DA	LL/RU	FL/RI	RU/LL	BL/AV	PA/
Haussier, Travis	/BL	RU/LL	DA/AV	RI/FL	LL/DA	FL/RI	BL/RU	PA/
Hendrickson, Seth	/PA	BL/FL	LL/RI	RU/AV	FL/LL	AV/RU	PA/BL	DA/
Hernandez, Jason	/PA	BL/RU	DA/RI	LL/AV	RU/DA	AV/LL	PA/BL	FL/
Higbee, Zachary	/DA	FL/BL	RU/RI	PA/AV	BL/RU	AV/PA	DA/FL	LL/
Hiszpanski, Anna	/PA	FL/AV	RU/LL	DA/RI	AV/RU	RI/DA	PA/FL	BL/
Hong, Cheng	/RI	DA/AV	LL/FL	RU/PA	AV/LL	PA/RU	RI/DA	BL/
Hsu, Ellen	/DA	BL/RU	AV/RI	FL/PA	RU/AV	PA/FL	DA/BL	LL/
Huang, Beijing	/BL	DA/PA	AV/RU	LL/FL	PA/AV	FL/LL	BL/DA	RI/
Huang, Julie	/RI	BL/FL	DA/AV	LL/RU	FL/DA	RU/LL	RI/BL	PA/
Hudson, Alexander	/PA	RI/DA	FL/RU	LL/BL	DA/FL	BL/LL	PA/RI	AV/
Huynh, Michael	/DA	LL/PA	BL/RU	AV/BL	PA/BL	FL/AV	DA/LL	RI/
Ingraham, Stephen	/RU	RI/BL	LL/DA	PA/AV	BL/LL	AV/PA	RU/RI	FL/
Ivanov, Lozan	/AV	FL/BL	PA/LL	DA/RU	BL/PA	RU/DA	AV/FL	RI/
Jackson, Jamie	/FL	AV/RU	BL/RI	LL/PA	RU/BL	PA/LL	FL/AV	DA/
Jakimo, Noah	/BL	RU/AV	FL/DA	LL/RI	AV/FL	RI/LL	BL/RU	PA/
Jansen, Camden	/RI	AV/PA	LL/RU	DA/BL	PA/LL	BL/DA	RI/AV	FL/
Jezevski, Sean	/PA	DA/FL	LL/AV	BL/RI	FL/LL	RI/BL	PA/DA	RU/
Johlin, Eric	/DA	AV/BL	FL/RU	PA/LL	BL/FL	LL/PA	DA/AV	RI/
Kaltenboeck, Georg	/RI	AV/FL	DA/BL	RU/PA	FL/DA	PA/RU	RI/AV	LL/
Kawatsu, Christopher	/AV	DA/RI	LL/PA	BL/FL	RI/LL	FL/BL	AV/DA	RU/
Kazlowski, Kristopher	/FL	PA/BL	AV/RU	LL/DA	BL/AV	DA/LL	FL/PA	RI/
Khosla, Aditya	/RU	LL/PA	DA/AV	RI/BL	PA/DA	BL/RI	RU/LL	FL/
Kim, Sungshik	/FL	DA/LL	PA/BL	RU/AV	LL/PA	AV/RU	FL/DA	RI/
Kirkegaard, Kasper	/DA	FL/LL	BL/RU	PA/RI	LL/BL	RI/PA	DA/FL	AV/
Kolind, Jens	/RI	LL/PA	FL/AV	RU/DA	PA/FL	DA/RU	RI/LL	BL/
Kozak, Kristen	/LL	DA/BL	RU/PA	FL/RI	BL/RU	RI/FL	LL/DA	AV/
Kramer, Nicholas	/FL	BL/AV	RU/PA	DA/RI	AV/RU	RI/DA	FL/BL	LL/
Krikorian, Alex	/PA	FL/AV	BL/DA	RU/LL	AV/BL	LL/RU	PA/FL	RI/
Kunesh, Lea	/RU	AV/FL	PA/DA	LL/BL	FL/PA	BL/LL	RU/AV	RI/
Kwong, Jerry	/BL	DA/LL	AV/RI	FL/RU	LL/AV	RU/FL	BL/DA	PA/
Lai, Andrew	/FL	PA/RI	RU/DA	AV/BL	RI/RU	BL/AV	FL/PA	LL/
Laljani, Vibha	/LL	FL/DA	RU/RI	PA/AV	DA/RU	AV/PA	LL/FL	BL/
Lanman, Ryan	/BL	FL/RU	DA/LL	RI/PA	RU/DA	PA/RI	BL/FL	AV/
Lee, Eui Woong	/DA	LL/RU	AV/FL	PA/RI	RU/AV	RI/PA	DA/LL	BL/
Lee, Jinwoo	/RU	RI/PA	AV/FL	DA/BL	PA/AV	BL/DA	RU/RI	LL/
Lee, Joon Ho	/RU	AV/PA	LL/DA	RI/BL	PA/LL	BL/RI	RU/AV	FL/
Lee								

A Message to the New Students from the IHC Chairman

By PETER FOLEY, IHC CHAIR

Welcome to Caltech! You may be a bit overwhelmed by now with all of the information that has been thrown at you since you arrived. That is why I would like to take this opportunity to summarize the information that we presented to you at frosh camp concerning Rotation. Many upperclassmen will agree that Rotation is the most important things you will do here during your first week. Please refer to the schedule in this paper to find out which House you are eating each of your meals in and when that meal will be served.

If you are eating lunch in Lloyd, Page, or Ruddock, you should get your food in Chandler and then head over to the house. For Avery, you get food in the Avery kitchen and head out to the courtyard. Lunches in Blacker, Dabney, Fleming, and Ricketts will be served buffet-style and then you will head to the house courtyard.

For rotation, dinners at Avery, Lloyd, Page, and Ruddock are held in their dining halls. Blacker and Ricketts eat in their courtyards, Dabney is in Chandler, and Fleming is on the roof of Winnett.

Each House has dinner at a slightly different time, however, you should show up to dinner a half an hour early as each House will be holding a brief reception before dinner. After dinner, the Houses will also have receptions in which you should try to meet the upperclassmen in that House and get as good of a feel for a house as possible. At every one of your meals, both lunch and dinner, there will be a nametag waiting for you. You must pick up your nametag.

We keep track of who does not show up for a meal by the nametags that were not picked up. If, for some special circumstances, you must miss a meal, please attempt to talk to either the president of the House whose meal you are missing or the IHC Chair before you miss the meal. Missing any meal without an acceptable reason may result in you being considered to have rated all of the Houses equally. By the end of the week, you will be sick and tired of shaking hands and small talk, but stick with it. Give all of the Houses an equal chance. On Saturday, you will eat lunch in the House that you are living in. After this meal, the House's RA will make available to you a rating sheet (sample sheet included in this paper). Between 2 and 4 PM,

the RA will be available in a place made known to you. You must go to the RA during this time and give him or her your rating sheet. At that time, the RA will input your ratings and show them to you to confirm that they are correct. The next thing that will happen for you will occur on Sunday at 5 PM. The cannon will fire and then, if you so choose, you can run to your first-choice House. Each House will have some sort of initiation set up that you can go through. This process will let you know whether or not you got into that House. If, after going through the initiation process at your first choice House and discovering that you did not get in, there will be someone standing by to tell you which House you did get into. You can also choose to not find out that way and, instead, to go to your second-choice House and try again. If you would rather not participate in the initiations, lists of House assignments will be posted on the Olive Walk and on the Moore Walk (just south of Avery where you ate immediately after Frosh Camp) at 5:30 PM. The initiations are not something to be afraid of; they are merely good-spirited traditions of the Houses. Hazing is a very serious issue which is not tolerated. If, at anytime you feel uncomfortable with what is happening, just say "STOP!" and everyone will listen. The Wednesday after Rotation week will be moving day, at which time you will all move from the temporary assignments in which you are currently living to your permanent House. In some Houses, you will move directly into your permanent room; in others, you will have a second temporary room for a few days to give you a chance to meet the other new students in the House and choose a roommate. If you're trying to move into a room, but the other student hasn't left yet, find the President of your new house, and they'll take care of things. Remember that the House you are in will affect your entire time here at Caltech. That said, you should try your hardest to get a good impression of each House and submit your unbiased ratings. You probably shouldn't completely blow off your Ch1a set, but just remember that it isn't the most important thing that will happen this week. Above all else though, try to have fun. I look forward to meeting you all.

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2005 Rotation Rating Sheet

You **must** rate at least 5 of the 8 Houses, though you **may** rate as many Houses as you feel comfortable living in. When rating a House, base it on how you feel about the House and not how it compares to other Houses. The rating scale is between 1 and 10; 1 means "I love this House," 5 means "I like this House," and a 10 means "This House is okay." Rating two houses the same means that you have absolutely no preference between the two of them. **If you absolutely do not want to live in a House, do not rate it.** Please complete this rating sheet in the privacy of your room and do not share your ratings with anyone except the RA—this should reflect only your opinion.

The above is the only rule that exists. The following are all acceptable (but not the only acceptable ways to rate houses):

House	A	B	C	D	E	F	G	H
Frosh 1	1		6		9	5	3	4
Frosh 2		3	9	6		5	1	
Frosh 3	7		7	7		10	5	7
Frosh 4	2	10	8	2	1	9		5

Please circle your rating for each House, or "Not Rated" for the houses that you do not rate. Remember that you must go to the RA of the House you are Rotating out of with this sheet completed between 2 PM and 4 PM on Saturday, October 1. Please be on time! If there are any problems, **IMMEDIATELY** call Peter Foley at 626-200-9301.

UID: _____

	Love				Like				Okay				
	1	2	3	4	5	6	7	8	9	10		Not Rated	
Avery													
Blacker													
Dabney													
Fleming													
Lloyd													
Page													
Ricketts													
Ruddock													
	Love				Like				Okay				

Recipes

By NATHAN LAU

Chinese Lettuce Wraps

Serves 3-4 people

Ingredients:

8 oz Ground turkey (1/2 normal package, can substitute for beef or pork)
 2 squares of Baked bean curd, cubed small
 1 Onion, minced
 2 stems of Green onion, chopped
 4 tablespoon Peanuts, salted and ground
 1 head of Iceberg lettuce, leaves separated.

/Marinade:/

1 tablespoon Cooking wine
 1/2 tablespoon Salt
 1/2 tablespoon Soy sauce
 1 tablespoon Garlic, powdered or minced
 2 tablespoon Corn starch
 1/4 teaspoon pepper

Directions:

1. Marinade meat by mixing it thoroughly with a mixture of the cooking wine, salt, soy sauce, garlic, corn starch, and pepper. Let it sit for 10 minutes.
2. Oil a pan, turn the stove on high and begin browning the meat.
3. After about two minutes of cooking the meat, add the onions.
4. Add the tofu about a minute after adding the onions.
5. After the meat is thoroughly cooked, turn fire to low and add the green onions and peanuts.
6. Use lettuce to wrap the meat mixture to eat.

Chinese Peanut Spaghetti

Serves 6-8 people

Ingredients:

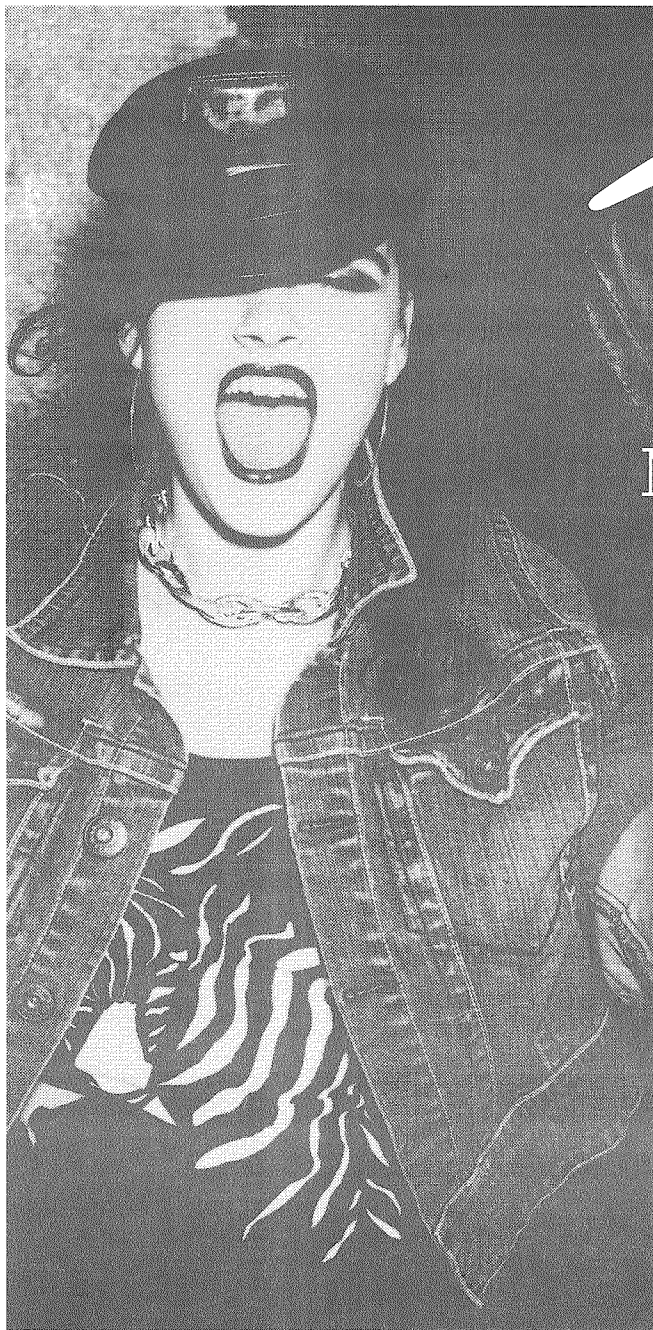
1 lb Spaghetti
 1/2 package Turkey lunch meat (can substitute for any type of lunch meat)
 2 heads Romaine lettuce, sliced thinly

/Sauce:/

4.5 tablespoon Peanut butter, creamy or crunchy
 1/4 cup Soy sauce
 1 tablespoon Sesame oil
 1.5 tablespoon Brown sugar
 1 tablespoon White vinegar
 1 teaspoon Sesame paste (can substitute with more sesame oil)

Directions :

1. Follow the directions on the package to make the spaghetti.
2. While the spaghetti is being made, make the sauce. Do this by mixing together the sauce ingredients in a bowl until it is a smooth brown mixture. The peanut butter takes a while to mix into the sauce, so it is advisable to add this to the mixture tablespoon by tablespoon.
3. Drain the spaghetti and then let it dry a while.
4. Add sauce, meat, lettuce and spaghetti together and mix thoroughly. One can also add sesames and ground peanuts for added flavor.



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Tough Times Turn Trustees Tight-Fisted

Continued from Page 1, Column 5

Balancing the Budget

Caltech's budget-balancing strategy is a mixture of seeking out new sources of revenue and making cuts in preexisting programs. Caltech plans to encourage more filming on campus and is working towards a long-term lease of the former St. Luke's Hospital. Currie is hopeful that the administration can raise at least \$7 million to help reduce the deficit.

As for the budget cuts, the Caltech approach is unconventional: according to Currie, "most schools would organize a task force, create a new office, and set up thirty new committees." Caltech is using the pre-existing Institute Administrative Council (IAC) along with the help and advice of a dozen other faculty members.

One of the council's tasks is investigating ways to streamline the administrative machinery of Caltech. Of particular note, council member Richard Murray, Chair of Engineering and Applied Sciences, will be investigating the Undergraduate Programs Department. Currie, along with President Baltimore and Provost Paul Jennings, will use the information gained from these investigations to design Caltech's future budget.

In addition to formal investigations, Vice President Currie also believes that community involvement can help guide the budget process. He places great faith in the Caltech community, saying, "at Caltech, whenever someone finds a new problem, people-students, professors, researchers-are quick to jump right to work. The cooperative effort and spirit of problem-solving transcends academic and administrative rank like nowhere else. This issue shouldn't be any different."

With the pressure to reduce the deficit, however, the administration has already instituted several changes that have angered the student body. For example, the parking fees announced earlier this summer angered students to such an extent that the Graduate Student Council staged a boycott of Caltech's dining services. "The Board of Trustees is a little impatient," said Currie. "We needed to do this to show them that we were serious about the issue." In the future, the administration hopes to make these decisions with more input from the students and faculty. Student cooperation is essential: although the administration and Currie in particular recognize Caltech's culture as an economic asset, the trustees feel the current price tag is too high. Currie hopes that by intelligently trimming the budget, we can preserve student culture.

Scientists Uncover Rules that Govern the Rate of Protein Evolution

By ROBERT TINDOL

PASADENA, Calif.--Humans and insects and pond scum-and all other living things on Earth-are constantly evolving. The tiny proteins these living things are built from are also evolving, accumulating mutations mostly one at a time over billions of years. But for reasons that hitherto have been a mystery, some proteins evolve quickly, while others take their sweet time-even when they reside in the same organism.

Now, a team of researchers at the California Institute of Technology, applying novel data-mining methods to the now-completed sequence of the yeast genome, have uncovered a surprising reason why different proteins evolve at different rates.

Reporting in the September 19 edition of the journal *Proceedings of the National Academy of Sciences (PNAS)*, lead author Allan Drummond and his coauthors from Caltech and the Keck Graduate Institute show that the evolution of protein is governed by their ability to tolerate mistakes during their production. This finding disputes the longstanding assumption that functionally important proteins evolve slowly, while less-important proteins evolve more quickly.

"The reason proteins evolve at different rates has been a mystery for decades in biology," Drummond explains. But with the recent flood of sequenced genomes and inventories of all the pieces and parts making up cells, the mystery deepened. Researchers discovered that the more of a protein that was produced, the slower it evolved, a trend that applies to all living things. But the reason for this trend remained obscure, despite many attempts to explain it.

Biologists have long known that the production machinery that translates the genetic code into proteins is sloppy. So much so, in fact, that on average about one in five proteins in yeast is mistranslated, the equivalent of translating the Spanish word "Adios" as "Goofbye." The more copies of a protein produced, the

more potential errors. And mistakes can be costly: some translation errors turn proteins into useless junk that can even be harmful (like miscopying a digit in an important phone number), while other errors can be tolerated. So the more protein copies per cell, the more potential harm-unless those abundant proteins themselves can evolve to tolerate more errors.

"That was the 'Aha!'" says Drummond. "We knew from our experiments with manipulating proteins in the lab that some had special properties that allowed them to tolerate more changes than other proteins. They were more robust." So, what if proteins could become robust to translation errors? That would mean fewer harmful errors, and thus a more fit organism.

To test predictions of this hypothesis, the team turned to the lowly baker's yeast, a simple one-celled organism that likes to suck up the nutrients in bread dough, and then expels gas to give baked bread its fluffy texture. Baker's yeast is not only a simple organism, it is also extraordinarily well understood. Just as biologists have now sequenced the human genome, they have also sequenced the yeast genome. Moreover, the numbers of every type of protein in the yeast cell have been painstakingly measured.

For example, there's a protein in the yeast cell called PMA1 that acts as a transformer, converting stored energy into more useful forms. Since nothing living can do without energy, this is a very

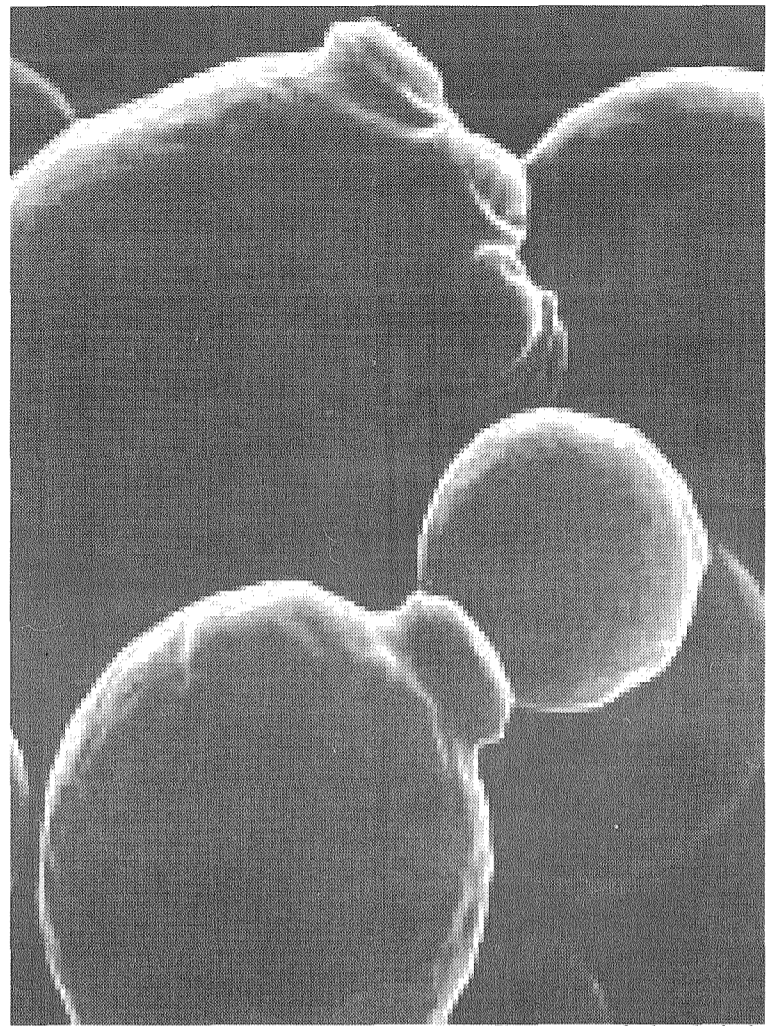


Photo courtesy of today.caltech.edu

A photo of something presumably associated with this article.

fundamental and important component of the yeast cell. And every yeast cell churns out about 1.26 million individual PMA1 molecules, making it the second-most abundant cellular protein.

The old assumption was that PMA1 changed slowly because its energy-transforming function was so fundamental to survival. But the Caltech team's new evidence suggests that the sheer number of PMA1 molecules produced is the reason that the protein doesn't evolve very quickly.

"The key insight is that natural selection targets the junk proteins, not the functional proteins," says Drummond. "If translation errors turned 5 percent of the PMA1 proteins in a yeast cell into junk, those junk proteins would be more abundant than 97 percent of all the other proteins in the cell. That's a huge amount of toxic waste to dispose of."

So instead, Darwinian evolution favors yeast cells with a version of PMA1 that continues to function despite errors, producing less junk. That version of PMA1 evolves slowly because the slightest changes destroy its crucial ability to withstand errors.

Consider two competing computer factories. Both make the same number of mistakes on their assembly lines, but one company's computers are designed such that the inevitable mistakes result in computers that still work, while with the other company's design, one mistake and the computer must be tossed

on the recycling heap. In the cut-throat marketplace, the former company, with lower costs and higher output, will quickly out-compete the latter.

Likewise, viewing yeast cells as miniature factories, the yeast whose most-abundant proteins are least likely to be destroyed by production mistakes will out-compete its less-efficient rivals. The more optimized those high-abundance proteins are--the more rigid the specifications that make them so error-resistant-the slower they evolve. Hence, high abundance means slow evolution.

The team is now exploring other predictions of this surprising hypothesis, such as what specific chemical changes allow proteins to resist translation errors. "It's the tip of the iceberg," Drummond says.

Drummond is a graduate student in Caltech's interdisciplinary Computation and Neural Systems program. The other authors of the paper include his two advisors: Frances Arnold, the Dickinson Professor of Chemical Engineering and Biochemistry at Caltech, and Chris Adami, an expert in population genetics who is now at the Keck Graduate Institute in Claremont, California. The other authors are Jesse D. Bloom, a graduate student in chemistry at Caltech; and Claus Wilke, a former postdoctoral researcher of Adami's who has recently joined the University of Texas at Austin as an assistant professor.

The title of the PNAS paper is "Why highly expressed proteins evolve slowly."

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