The Capitol Steps turn political scandals into humor at their performances last Friday and Saturday on the Caltech campus. This group of former congressional staff members poked fun at everyone and everything from Martha Stewart to American society.

Laureate Watson Recaps History of Double Helix

By ADAM SEARS

A large audience of Caltech undergraduates, faculty and local residents showed up on Monday for a public discussion on the history of DNA and bioethics between President David Baltimore and James Watson, who discovered the DNA double helix nearly 50 years ago. The pair share a bond as fel­ low Nobel laureates and discussed their views on historical and modern biology as it pertains to DNA.

Professor Baltimore began the conversation by reminding the audience of Watson’s credentials. Born in 1928, he went to the Univer­ sity of Chicago to become a bird watched. While there, he instead found a passion for genetics and later sought a Ph.D. in zoology at Indiana University.

The turning point in his life occurred when he read Erwin Schrödinger’s book “What Is Life?”. The influential book discussed the physics and chemistry of life and the specific properties of DNA that made it useful. Though never before inspired to do biology, he realized now that birds were not his calling. Soon afterward, he left to do research at Cambridge, where in less than two years he discovered the double helical structure of DNA.

Collaboration is at the heart of the story of DNA. There were many laboratories working towards solving the structure, all at the same time and often times researchers shared preliminary papers and results amongst themselves. Watson himself shared a laboratory and eventually the Nobel prize with another young scientist—Francis Crick. Each group approached the problem in a different way, however and the final result would not have been possible without help.

Watson and Crick focused on modeling the DNA strand, a method used by Linus Pauling that had particularly good success lately. Using ball and stick figures, they manipulated the molecule until it fit several properties found experimentally. Later, after examining new data from colleagues in Lon­ don, the final version was deter­ mined.

By ROBERT LI

On April 28th, a Pegasus rocket successfully launched the Galaxy Evolution Explorer (GALEX) into Earth orbit.

GALEX is an orbiting space tele­ scope designed to survey other gal­ axies in the UV spectrum. It was built at a cost of approximately $110 million. First conceived by Caltech professor Chris Martin and his colleagues in 1996, the GALEX telescope is part of NASA’s Explorers Program and is currently run as a joint effort between Caltech, JPL and a wide array of scientific insti­ tutions across the world including Johns Hopkins University. Caltech is responsible for running all of the mission science operations and has set up an operations center in the Synchrotron Annex where all GALEX scientific data is received and processed.

According to Martin, the primary goal of the GALEX mission is to “measure the rate and history of star formation in other galaxies.” To achieve this goal, the GALEX mis­ sion will be conducting the first all-sky extragalactic survey. This will allow scientists to compare the UV emissions from nearby and far away galaxies and in doing so understand how the process of star formation occurs and how it has changed over time.

Besides its innovative scientific mission, the GALEX telescope is itself a technical marvel. Accord­ ing to Martin, GALEX will contain the “largest UV detectors ever flown in space.” The instrumenta­ tion on the GALEX telescope con­ tains many technical firsts includ­ing the first near UV (NUV) and far UV (FUV) grism—a spectroscopic grating on a prism that will allow the spectral analysis of UV light—the first UV dichroic beam splitter which will allow simultaneous ob­ servations in both the NUV and FUV spectrum and the first large NUV and FUV microchannel plate detector.

In contrast to the Hubble Tele­ scope, GALEX is much smaller—about six feet tall and the width of your outstretched arms—and is designed to locate local galaxies in the sky at a time rather than one object at high resolution. This means that the GALEX telescope is designed with a far larger field of view than Hubble and several times at the ability for the more of the sky. In the case, the wide field of view of the GALEX telescope is designed to two full moon diameters, will allow it to scan an eighth of the sky in each 98 minute orbit.

In addition, the wide field of view makes GALEX the perfect instru­ ment to find objects of interest for other space telescopes like Hubble, the Chandra X-Ray telescope and SIRTF to examine in greater detail. According to Martin, GALEX is particularly complementary to other space telescopes. Galactic events tend to generate emissions primarily in the form of UV and IR radiation. Currently, GALEX is in a circular 690-km orbit. Scientists use GALEX to locate new objects and instruments and so far, all has gone very smoothly. The plan is to turn on the detectors on May 13 and take the first image a week later on the 20th.
The first two capital projects of the campaign are also underway. The renovation of Dabney Hall has proceeded to the furthest. The Ahmanson Foundation provided a large portion of the total $13 million needed for both the restoration of Dabney Hall and the retrofitting of Millikan Library to accommodate the staff and administrators who will be relocated there. The project will serve several purposes. Not only will it help restore Dabney Hall, but it will also create a library for the humanities and expand the Hixon Writing Center. The work is scheduled to begin in September and should be finished by the end of next school year.

The second capital project is the construction of the new astronomy building next to Keith Spalding. The Cahill Center for Astronomy and Astrophysics will group all the astronomy programs on campus together—currently they are spread out in several buildings, including Robinson, Bridge and Downs. Fundraising continues, helped by the recent $5 million contribution from Caltech alumnus Mike Scott (BS '65).

For the future, Dicovitsky remains cautious but hopeful. The still slow economy and the uncertainty raised by the operations in Iraq has made fundraising difficult, "the whole idea of philanthropy actually being in a bit of a slow down. Still, Caltech has fared better than many other institutions, "in that what we do, we do better than most other places and in some cases, all other places."

The level of interactions with alumni and friends has remained very high, although the number of large outright gifts is not expected to pick up until the external factors calm down.

Following on the heels of the San Francisco campaign kickoff was another gathering of Caltech friends, this time on the East Coast. This celebration was held in New York this past Thursday, May 9 and also served to inaugurate an association of Caltech friends on the East Coast.

Dicovitsky also expressed his desire to have better communication with the students as this campaign program progresses. He said, "We have a Web site, http://caltech.org, now has more up-to-date campaign news—although work continues to update it more frequently—and Dicovitsky plans to talk to the students directly that publications which receive updates on the campaign include ones read by students.

Watson Speaks on Gene Ethics, 'Biological Revolution'

Continued from Page 1, Column 2

"Luria always thought chemists wanted money," Watson remembered. "His thesis was written on the effects of x-ray radiation on viruses, perhaps it was Luria's lack of emphasis on harnessing the rays in modern chemical methods that led to Watson's slip-up with crystallography terms and lived.

Watson started and lived through a biological revolution. Before the era of gels and genes, when modern machinery and the corporate mentality became necessary for a research project to succeed, Watson spent hours in his office fiddling with the model. He still occasion- ally spends a slide rule and freely admits getting a "B" in his first biology summer course and a "C" in calculus. Yet it is his perseverance and resourcefulness that led to one of the most influential discoveries of the century.

According to Professor Meyerowitz, Chair of the Biology Division at Caltech, the structure Watson and Crick proposed was so exciting because it just came to Watson in a flash. "The discovery of the DNA structure led fairly directly to our current understanding of DNA replication and therefore control of cell division, of protein synthesis and our ability to read genes." Research has not been his only contribution to the field of biology, though. Watson is the author of books and a couple personal ac- counts of his discovery which have inspired a whole generation of ge- neticists. As director of the Cold Spring Harbor Laboratory in New York, he turned around a nearly failed institution. In addition, notes Meyerowitz, "he was one of the primary proponents of the human genome project to sequence the 10% most important part of DNA from much of the population for the first time.

"Watson is all of the good qualities," Meyerowitz said. "He's a great mentor; he's very generous; he's a great role model for the students who follow him; he's a great collaborator." Watson's career has been filled with controversy. A couple of years ago, the National Academy of Sciences named Watson a member of the National Academy of Sciences. Watson and Crick proposed was so exciting because it just came to Watson in a flash. "The discovery of the DNA structure led fairly directly to our current understanding of DNA replication and therefore control of cell division, of protein synthesis and our ability to read genes." Research has not been his only contribution to the field of biology, though. Watson is the author of books and a couple personal ac- counts of his discovery which have inspired a whole generation of ge- neticists. As director of the Cold Spring Harbor Laboratory in New York, he turned around a nearly failed institution. In addition, notes Meyerowitz, "he was one of the primary proponents of the human genome project to sequence the 10% most important part of DNA from much of the population for the first time.

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"Dr Hirai teaches elementary Japanese. She is always very cheerful, very patient in class, and comes up with various interesting ways to conduct lessons. Everyone in the class is involved through exercises on the blackboard, pairwork, or class-wide discussions and interaction. There is never a single dull moment in Japanese class. Dr. Hirai also takes her initiative to organize things like a trip to the Japanese American museum. Last term, she also made delicious mochi for us to try. In short, Dr. Hirai really cares about teaching her students, and really deserves an award."  

"He is the nicest professor I've had to interact with in my three years so far here. He is very patient in class, and tries to present lecture material in various ways fitting the different way people learn, giving out lots of handouts. Whenever I email him about questions, he writes back within ten minutes. When I pass by his office, he is often seen helping a student. He is very organized and his lectures flow very along, the students' wishes, whether it comes to help students. He explains the material better than the textbook or even the lecturer, in my opinion, and knows the right pace at which to go. On one occasion that I know of, another TA did not show up for office hours. Brian then took a couple of hours from his work in the lab to hold office hours for us. The hardest-working, genuinely interesting, and simply good TA I have ever seen, always on the ball. He seems genuinely concerned about our education, polling us to see what we are learning, giving us feedback on what our learning patterns are like. Finally, he is modest and friendly. I think he is an excellent example for all professors."  

"Colin was an incredible teacher during the class that I took with him, BEME 146. The class attendance stayed around 100%, with people coming not just because the lectures were incredible for learning the material, but because they were actually fun and interesting. Peppered with anecdotes, his lectures managed to drive home the material in a way that would make the class laugh two or three times every period. It's the sort of teaching that I remember from the best teachers in high schools and, with the exception of Camerer, have found entirely lacking at this place."

"David was the lecturer for Ph 1a, and though it's the only course that I've taken with him, I'm already convinced that he's an amazing lecturer. More than once was he applauded following his lectures; it is probably no small matter that on the final day of Ph 1a the students attending his lecture gave him a standing ovation. As a lecturer he is witty and charismatic; up close he is kind and patient. My only regret about Ph 1a is not having had the opportunity to interact more with him. He is amazing."  

"Jeff Copeland"  

"Luke Ekkizogloy"  

"Katalin Grubits was an outstanding TA for Ph 2b. She explained the difficult concepts of quantum mechanics in a way that pretty much anyone could grasp and apply when it came to problem sets, quizzes, and the final exam. Katalin was always willing to stay in section or office hours as long as anyone still was understeread of the material. It was Katalin who actually made quantum interesting and enjoyable, despite the fact that I had little love for physics while I was on core. Of all the many TAs I've had in my time here, Katalin was by far the best and truly deserves to recognized for her efforts."  

"The California Tech Commentary: May 12, 2003  

ASCIT Teaching Awards 2003: Sample Nominations  

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"Luke Ekkizogloy" is a great guy. He is currently TAing EE 90, where he devotes a lot of time to helping people with their projects. He is very accessible at all hours of the day, and very encouraging as well. Everybody gets stressed taking EE 90, but he tries to make us all cheer up."

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Students pose at this year’s leadership lunch, which honored recipients of this year’s slate of leadership awards.

Student Leaders Take Home Yearly Awards

By LAUREN STOLPER

Deans’ Cup, Master’s Award

Deans’ Cup and Residence Life and Master’s Award are presented annually to recognize senior students for their outstanding leadership and service to the college. These awards are presented to students who have demonstrated exceptional leadership and service to the college community. The awards are presented to students who have demonstrated exceptional leadership and service to the college community.

The students selected for these awards are chosen by a panel of faculty and staff members who work closely with the students to identify those who have demonstrated exceptional leadership and service.

The awards are presented at a special ceremony held during the college’s annual leadership week. The recipients are recognized for their contributions to the college community and are celebrated for their commitment to making a positive difference in the lives of others.

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Committee Resolution, Fresh, Alumni

By TOM FLETCHER

Committee Reporting

The ASCIT BoD worked with the IHC this week to draft a resolution to create a committee reporting mechanism. I talked about all its benefits last week, so there’s no need to re-tool the horn, but I wanted to keep you all informed on its progress. Below is the revised text we hope to pass. I think it will accomplish the goal of maintaining accountability, keeping us all informed, and ensuring that the students’ voice is heard. Without further ado...

Resolution XXVI: Committee Oversight

Section I: ASCIT recognizes the need for supervision of committees and the need for them to be accessible and accountable to the community.

Section II: Representatives to Institute committees are required to submit to the BoD short written summaries of all meetings they attend in their capacity as a representative. These summaries are to be disseminated to the student body via whatever means are deemed necessary (e.g. The California Tech, Donut website, etc.). If there are multiple representatives on a committee, only one summary needs to be sent.

Guidelines for a summary:

• List of students in attendance.
• List of agenda topics covered.
• Any additional explanation of topics covered deemed necessary by the representatives.

Section III: Failure to attend and/or submit summaries from two or more meetings of the representatives of a committee will be deemed as grounds for recall.

A Gaggle of Editors

Yesterday, the ASCIT BoD appointed new editors and business managers for ASCIT publications (Totem, Little J, and the Big J). At the time of this writing, these interviews haven’t actually happened yet, but I’d like to thank everyone that signed up, especially for positions where there was more than one candidate (giving us a choice!). For those of you who missed it but are interested, track these people down and volunteer to help. Editors do not mean “do everything by myself,” and even if it sometimes does, that’s not the way it should be. So, if you’re so inclined, pitch in!

Whom I Met With This Week

This week’s meeting with Margo Marshak was as successful as normal. We discussed a wide array of pressing and future issues. One of the most pertinent is the decision to only enroll about 185 students in next year’s freshman class. You may have already heard this based on how your room picks went (if you’ve had them), but regardless, it is a major boon to the student body next year. Classes will be smaller, rotation will have more one-on-one time, and there will be less of a housing crunch.

We also had a chance to discuss a few upcoming information gathering efforts around campus. The Career Development Center is doing research into a leadership certification program. The idea behind the program is that it would provide training for motivated student leaders to do a better job running clubs, houses, even ASCIT.

The other is the Caltech Diversity Statement that is being adopted. Focus groups will be meeting throughout May to determine what our campus vision is for diversity. Is diversity important to you as a Caltech student? Does your education suffer because there are fewer minorities here than at any other elite institution in the country? Or, to be perfectly honest, does it not matter at all? If you have an opinion on this issue, and you are interested in helping to set this policy, contact Sharyn Shavin Miller, Assistant VP for Student Affairs in the Student Services Center.

I also met with Debbie Hall (current president of the Alumni Association) and Tom Tisch (newly elected president). They are interested in raising the profile of the Alumni Association and want to get involved with students to a larger degree. They’re interested in getting alumni to come to house dinners, set up some recruiting fairs, and subsidizing new social events. If you have ideas you’d like to share, just pop over to the Alumni House on Hill or tell them to me or a House president. The alumni really want to help; they just need us to tell them how we’d like to be helped.

Moment of Zen

I disappeared for parts south of here this weekend to go hiking in the Torrey Pines State Reserve (www.torreypine.org) in La Jolla. The drive there was about two hours on the I-5, and the hike was as long or as short as we wanted to make it (there are many splitting trails). The air was fresh and salty, and the early morning sun was bright but not roasting, and the local joggers/bikers were nice. I got the idea from a book called “Walks of California,” and according to the book, this is one of the four best “coastal” hikes in Southern California. Based on how easy it is to pop down for a short day trip, how cheap it is ($4 to park in the reserve), and how refreshing it was to be sitting on sandy bluffs overlooking the Pacific while watching dolphins (did I forget to mention you could see dolphins swimming through the waves? Well, you can!), there’s no reason not to go next weekend! And hey, if you know some alumni in the area, it’s easy to crash there for the night (they’ll be happy to see you).

Tom P.S.: Matrix: Reloaded on Wednesday! Thank you Tom Mannion! And professors to whom Iowe homework on Thursday: Can you please get a little easier on us next week? And professors to whom I’d like homework on Thursday: Can you please get a little easier on us next week?

CINCO DE MAYO FEST

Cinco de Mayo coincided with Caltech Dining Service’s Olive Walk Italian barbecue this past week. Students patient enough to wait in line were rewarded with Italian sausage, a Cinco de Mayo favorite.

BUILDING BRIDGES

Is diversity important to you as a Caltech student? Does your education suffer because there are fewer minorities here than at any other elite institution in the country? Or, to be perfectly honest, does it not matter at all? If you have an opinion on this issue, and you are interested in helping to set this policy, contact Sharyn Shavin Miller, Assistant VP for Student Affairs in the Student Services Center.

PHOTO OF THE WEEK

This past Saturday, Caltech’s bands held a combined ’Banderama’ as their final farewell concert, closing their season with a crescendo.

At CEFCU, You Can Be Sure the “Fine Print” is Always...Fine!

Some banks try to disguise their high-cost credit cards with “fees” or introductory offers. They sound great...until you read the tiny type. That’s why our Credit Union is different. Our VISA is a straightforward, honest card. No gimmicks. No hidden fees. Just:

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What’s Wrong with ASCIT? Doughnuts

By JEAN-PAUL REVEL

One of the successful innovations in the Caltech curriculum is the expanded student participation in extracurricular activities. Students no longer look to ASCIT to provide them with new services, and are turning instead to student self-governance. Student activist groups have often complained publicly about club funding, the honor system, or student governance, but these complaints have been constant questions about doughnut availability. The reason is simple: In my entire time at Caltech, the only ASCIT legislation that was proposed by initiative has been a bylaw amendment regarding doughnuts.

When put on a ballot, that initiative received only 40% of the vote, and this reveals a deep divide in the student body’s opinion of ASCIT’s primary function. The division has been growing over the years and has corresponded with a weakening central student government and a decline in student influence on campus.

There are basically two major arguments for ASCIT’s existance. First, there are students who believe their $60 a year in ASCIT dues buy them various services, most prominently the doughnuts they pay for every Friday morning. The other side is students who believe that ASCIT has no business buying doughnuts and that we should see clubs change their own members’ fees into dues, with student self-governance, and allow students more influence to support the things they want to do. However, more certainty isn't the only solution to this problem.

Rather than trying to reacquire those doughnuts, the only primary student service provider, we could simply accessible the ASCIT students. Instead, let’s try to learn how to make the competition work for us, how to see clubs change their own memberships’ fees, and how to get a seat on student self-governance, and allow students more influence to support the things they want to do. Currently, only the ASCIT President works with the Student Affairs Committee on a regular basis.

All the other ASCIT officers have been busy running the student affairs committee. Rather than trying to change the status quo, let’s start working on the relief of ASCIT’s past. If ASCIT wants to shift its focus, some major restructuring will need to be done, which should probably start with a campaign to get representatives on campus committees.

In either scheme, ASCIT doughnuts may see a decline in participation. The American National Student Association, for instance, do not put in money to their doughnuts. The ASCIT of the past was focused on student services. ASCIT once operated a coffeehouse in the SAC and managed the monthly phone bills for all students living on campus. When students needed summer research, the ASCIT Research Project was initiated. To help students pick the best courses, the ASCIT Educational Policies Committee began publishing Teaching Quality Feedback Reports.

Today, Dining Services operates the coffeehouse, Telecommunication Services takes care of the phone service, the SAC oversees the SURF program, and each department handles their own teaching evaluations. Even further in the past, ASCIT once managed the Summer Research Program, which is now in the hands of professional coaches and administrators.

This transition from ASCIT to student self-governance seems to be going for decades. After all, what better way to train leaders for valuable student services than to pick from students’ own initiatives? Unfortunately, ASCIT has not been able to keep up with the times. In my second year as a student, the ASCIT doughnuts had been gone down over the past two decades as Student Affairs has grown much faster than ASCIT.

Clubs can no longer rely on ASCIT to fund their activities without some student self-governance. Student activist groups often create new programs to advocate for student services. Students no longer look to ASCIT to provide them with new services, and are turning instead to student self-governance. Student activist groups have often complained publicly about club funding, the honor system, or student governance, but these complaints have been constant questions about doughnut availability. The reason is simple: In my entire time at Caltech, the only ASCIT legislation that was proposed by initiative has been a bylaw amendment regarding doughnuts.

When put on a ballot, that initiative received only 40% of the vote, and this reveals a deep divide in the student body’s opinion of ASCIT’s primary function. The division has been growing over the years and has corresponded with a weakening central student government and a decline in student influence on campus.

There are basically two major arguments for ASCIT’s existance. First, there are students who believe their $60 a year in ASCIT dues buy them various services, most prominently the doughnuts they pay for every Friday morning. The other side is students who believe that ASCIT has no business buying doughnuts and that we should see clubs change their own members’ fees into dues, with student self-governance, and allow students more influence to support the things they want to do. However, more certainty isn't the only solution to this problem.

Rather than trying to reacquire those doughnuts, the only primary student service provider, we could simply accessible the ASCIT students. Instead, let’s try to learn how to make the competition work for us, how to see clubs change their own memberships’ fees, and how to get a seat on student self-governance, and allow students more influence to support the things they want to do. Currently, only the ASCIT President works with the Student Affairs Committee on a regular basis.

All the other ASCIT officers have been busy running the student affairs committee. Rather than trying to change the status quo, let’s start working on the relief of ASCIT’s past. If ASCIT wants to shift its focus, some major restructuring will need to be done, which should probably start with a campaign to get representatives on campus committees.

In either scheme, ASCIT doughnuts may see a decline in participation. The American National Student Association, for instance, do not put in money to their doughnuts. The ASCIT of the past was focused on student services. ASCIT once operated a coffeehouse in the SAC and managed the monthly phone bills for all students living on campus. When students needed summer research, the ASCIT Research Project was initiated. To help students pick the best courses, the ASCIT Educational Policies Committee began publishing Teaching Quality Feedback Reports.

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Dr. Richard Tapia of Rice University shares his efforts to increase diversity at Rice in engineering, science and math boards. His talk, which took place last Thursday in Ramo Auditorium was well attended by Caltech alumni and administrators.

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science and engineering fields.

President David Baltimore gave the introduction, citing the two Uni-

versity of Michigan cases concern-
ing graduate and undergraduate ad-
missions brought before the Su-
preme Court. The plaintiffs in both cases challenge the need for

affirmative action.

Dr. Baltimore added, however, that Caltech supports the University of Michigan, because we must have criteria to have a diverse student body. The court ruling could affect the climate of which Caltech and other universities operate and so Dr. Tapia was invited to share his views on diversity and how to achieve it on our campus.

Dr. Tapia began his speech by first clarifying that all the views he was going to express were his own and the audience could agree or dis-

agree with his perspective.

He then briefly went over his background. Born in Los Ange-

les, Dr. Tapia's parents emigrated from Mexico to the U.S. in search of a better life. However, because they had to support themselves while in community college, they were not able to fulfill their dream. Their mother's motto was "You can do it;" it carried on to his four brothers and sisters and taught them the importance of the rich environment they enjoyed.

Dr. Tapia was a product of the L.A. public schools and did not get a great high school education nor great grades. After graduation, he went to work and then attended community college before transfer-
ing to University of California, Los Ange-

les, and receiving his BA, MA and Ph.D. degrees in mathematics there. He then went on to join the faculty at UCLA and University of Wisconsin.

Despite his amazing record of awards and successes, he claims that he built his strongest self-es-
timate while in community college and expressed the sentiment that community college should be given more credit for its contributions.

Dr. Tapia attributes much of his success to following his culture and value system. What really sets him apart from others, though, is his "unimpaired ability from having a multi-

faceted personality. How many people can match me in so many areas?"

Dr. Tapia then defined under-re-

presented as when the percentage of an ethnicity or sex in a group is less than the percentage of that people in the general popu-

lation. For example, Hispanics and African Americans constitute 25% of the U.S. population, but only 4% of the doctorate degrees in math and physical sciences.

He further claimed that for the health of the nation, under-repre-

sentation cannot be maintained. "The underrepresented are a permanent underclass," he ex-

plained, which leads to crime and other problems.

According to Dr. Tapia, there are several factors contributing to the disproportionate number of minorities in higher education. The first is the uneven playing field in K-12 education. Often times, even within the same school district, there are stark disparities in the quality of education offered. The preparation is a reflection of how much the time the students get to universities they can often be at a huge disad-

vantage if they had gone to one of the less prestigious high schools.

A factor is contemporary youth culture. 90% of youth that belong to underrepresented groups live in the city. Education is not a value—so much as a supply problem, beauty, a demand prob-

lem. Youth prefer entertainment and sports, rather than engineering, science and math.

Also, we have faulty evaluation systems. We don't know how to evaluate what is really needed in graduate school to succeed, such as creativity and not just test scores. Oftentimes, we exclude some very good individuals, who could be quite successful if only given a chance.

Further, there is an overall mis-

use of standardized testing, the underrepresented minority's worst enemy. Too often, the distinctions are simply cut away their confidence, their self-esteem, their possibilities to succeed and simply cuts away their confidence, leaving only talent—and they can-

not survive on talent alone.

There is no easy fix for this prob-

lem.

Affirmative action, which Dr. Tapia defined as putting race and ethnicity into the formula to try to make up for years of denied access, to "good ideas that failed from poor implementation." Remarkable Dr. Tapia, "It is my belief that affirmative action is just to keep us alive and will die." There are no simple formulas that can solve this problem.

At Rice, he explained, they de-

cided not to fight the full of affirma-
tive and instead of simply look-
ing at someone's ethnicity as a factor in admissions, one of their admission essay questions is "Write how you would contribute to diversity at Rice?" Last year, six people with perfect SAT scores were not accepted into the freshman class.

Dr. Tapia ended by posing several challenges to Caltech, which if ful-

filled would make major steps in in-

creasing diversity. The first was to not accept minorities if we cannot retain them. If we accept and they come, but we fail to retain them, we do more harm than not accepting them. If we cannot retain, then we are losing leaders with a huge potential for success had they gone to any other school. Failure to retain harms the self-esteem of those that cannot keep up and dis-

courages other underrepresented minorities from entering the math and sciences.

Because we hire faculty, of course we make effort for gen-

erality. However, we should also look at what the faculty that we hire can do to increase diversity on cam-

pus in terms of the support they will provide and the environment they design for underrepresented groups. It is the faculty that produce Ph.D.'s, and not the administration, so it is of the utmost importance that the faculty bring in minorities from other schools.

The third was to emphasize postdoctoral scholars. It is neces-

sary that we nurture them and make them productive by putting them with good people. The faculty must buy in to the idea and do their best to offer recognition when good work is done and show the postdocs what an asset to the community they are.

And with that, Dr. Richard Tapia's talk ended with a brief question-

and-answer session followed by a reception.

Because of Dr. Tapia's efforts, Rice has received national recog-
nition for its educational outreach programs and the Rice computa-
tional and applied mathematics de-
partment has become a national leader in producing women and underrepresented minority Ph.D. recipients in the mathematical sci-

ences. Dr. Tapia has directed or co-
directed 37 PhD. students, including 16 women and 13 underrepresented minorities.

He also impacts hundreds of teachers through two summer pro-

grams that are run by his Center for Excellence in Education: the Mathematical and Computational Sciences Awareness Work-

shop and Gift/TECH, aimed at get-

ting girls interested in computer science.

Dr. Tapia has received various awards, including the Presidential Award for Excellence in Science, Mathematics and Engineering Mentoring (1996) and the Disting-

uished Scientist Award from the Society of Advancement of Chicano and Native Americans in Science (2000). He was also the first native-born Hispanic to be elected to the National Academy of Engineering.

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This year's Semana Latina marked the 10th consecutive year Caltech has celebrated Latino culture, hosting a week of Latino bands, lunches and a Saturday night salsa party. Featured bands included the funk musicians the B-Side Players and Odara, an Afro-Salsa group.

Club Latino Celebrates Semana Latina Week

By JENNY IOFINOVA AND ARTHI SRINIVASAN

During the week of May 5, Caltech's Club Latino had its 10th annual Semana Latina. Semana Latina featured live music and lunch every afternoon in front of Winnett Center, as well as a night time movie on Friday and a salsa party on Saturday night.

According to the Club Latino Web site, the event was organized by Caltech's Club Latino and CLASIS, the graduate and undergraduate Latino student organizations, respectively. Compared to other Southern California schools, Caltech has a very small Latino student population and the members of both organizations strive all the more ardently every year to expose the Caltech community to the Latino culture and heritage.

Not all Caltech students were particularly anxious to be exposed to the culture, however. Ramon Shah, '06, described his reaction to the event: "Unfortunately, there is not a large Hispanic community at Tech. So the rest of us are like, 'hmm... music sounds good. Let me go to class now.'" It has been the historical complaint of event organizers that many students do not care to participate with Caltech's already large workload for student attention.

Some of the events and bands featured during Semana Latina include: Johnny Polanco y su Conjunto Amistad, Maruchi Lee Pasajeros, B-Side Players, Conjunto Tencosolcham, Chita and the Art Flamenco Dance Theater 8 Flamenco, "El Hijito de la Novia," and a salsa party with Odara.

For $4, lunch was served as well, catered by EatM. "People really enjoyed each event and each one brought something different," said Anna Salazar, a graduate student and one of the main organizers of Semana Latina. "Also, 'we've been planning (Semana Latina) for a few months now.'" Semana Latina has become an annual tradition at Caltech, an object of anticipation among students. To keep every year different, according to Salazar, "[the organizers] always try to get different bands every year." Salazar also commented on this year's smaller budget for the event, adding, "Due to our constraints this year, we weren't able to have evening events, except for the Saturday night party."

Two of the most interesting musical groups that performed during Semana Latina were the B-Side Players, a modern Latin funk group, which was very well received, as well as Odara, a very popular Afro-Salsa band.

According to Salazar, although the weather was cloudy and cool, the turnout was still very good. Every afternoon, passersby could see a small crowd of people on the Winnett Lawn for lunch and later listening to the band of the day. To counter student apathy, the verting for Semana Latina has traditionality drawn a swath of attendees and interest. This year, there were several large posters which featured Beckman Institute in the background, with a statue of Quetzalcoatl, an ancient Mayan God, in the foreground.

Though intriguing, however, the posters were hardly abundant. The elaborate posters have been a longstanding tradition and have impressed visitors to the Dean's office, where framed past posters grace the wall.

Semana Latina was first started 10 years ago by a graduate student who wanted to celebrate his Latino heritage, as well as the culture and traditions of other Latin-American students. It has evolved into an intrinsically weeklong festival, this year run mostly by Caltech's Club Latino. This year, Semana Latina was brainchild of Carlos Romero, the club president, and Salazar, the treasurer. Both are graduate students and Salazar will be graduating this year. Despite Salazar's upcoming graduation, she promises, "there will most like be another (Semana Latina) next year." If this year's is any indication, next year's should be just as exciting.

Ma Wins First Chess Blitz Tourney

By MATTHEW WALKER

There was an air of intensity in the Page House Dining Room on Friday night as the Caltech Chess Club hosted its first Blitz Chess Championship. Games, which have a limit of five minutes per player, were often ended with a fury of moves as each player tried to win as the time wound down. The tournament was six rounds long, with two games per round. It was run using the Swiss system, in which nobody gets eliminated and the winner is the player that has accumulated the most points at the end of the tournament.

Postdoctoral Scholar Wei Ji Ma and Eugene Yasay '06 were this year's champions, scoring 10 out of a possible 12. Coming in third was Patrick Hummel, with a score of nine points. The winners of the novice division were Josh Gutman and Joel Austin.

The field of nineteen players included undergraduates, graduate students, postdoctoral scholars and faculty members. Club President Hummel commented "It's nice to see people who aren't regulars come out." The club, which meets at eight p.m. every Friday evening in the Page Dining Hall, was happy with the turnout.

One event, Kevin Trotter '06, enjoyed himself, saying, "I want to become a chess player." The Chess Club founding member Wei Ji Ma emphasized that the club was trying to increase the popularity of chess and encourage more people to join.

According to the most widely accepted cosmological theory, the universe is mathematically flat. However, astronomers could not account for the requisite mass and energy. Therefore, either the standard cosmological—"big bang"—theory was incorrect and the universe's geometrical structure was not that of Euclid or the astronomers were missing something important.

Lange studies fluctuations in the cosmic microwave background (CMB) radiation, a relic of the primordial "Fireball" that filled the early universe. These signals, which are visible today at microwave frequencies, provide a clear "snapshot" of the embryonic universe at an epoch long before the first stars or galaxies had formed. In general, this radiation reaches the earth uniformly from all directions in the sky. However, there is an intricate pattern of fluctuations in the CMB. Using novel detectors developed at JPL and flown on a balloon-borne telescope high above Antarctica, Lange's group was able to make the first resolved images of these very faint patterns. The images demonstrate that the radiation fluctuates on an angular scale of one degree, which is exactly what scientists expected from a mathematically flat universe. Since the 1930s, scientists have known that galaxies are moving away from one another and there has been a concerted effort to study the rate of this expansion. Prior to Perlmutter's efforts, almost all astronomers expected that the expansion of the universe was slowing, due to the gravitational attraction of galaxies and other matter. However, Perlmutter's group found that the universe is actually expanding at an accelerating rate, as if a "negative pressure" were pushing everything apart. Perlmutter's estimations of the cosmological constant's magnitude are consistent with Lange's observations of a flat universe.

Lange's work demonstrates that the universe is mathematically flat and that the standard cosmological theory is correct, while Perlmutter's work indicates that the source of astronomical energy giving rise to a flat universe comes from a type of negative gravitational pressure or dark energy permeating the universe. The nature of this dark energy remains a mystery.