#### **FEATURES**

## **UCSF Journal Club**

Read Alexandra Greer's latest installment of four recent research articles by UCSF scientists. » PAGE 3

#### **REVIEWS**

# The Tree of Life is a Film Like No Other

Much of the film is a comingof-age and an intimate family drama story. » PAGE 5 IN THIS ISSUE
Events » PAGE 2
Features » PAGE 3

Puzzles » PAGE 5

**Reviews** » PAGE 5



# Synapse The UCSF Student Personal Perso

synapse.ucsf.edu | Thursday, October 20, 2011 | Volume 56, Number 6

# It Takes More Than a Lounge

Wesley Yu Staff Writer

The front-page article in last week's Synapse called for an Interprofessional Student Lounge (IPSL). This lounge would be a space where budding nurses, doctors, dentists, and physical therapists could spend time together in a relaxed atmosphere. As a student in the Interprofessional Health Education (IPHE) program, I think a new lounge would be great and would increase the social interactions across our various schools. The request, though, made me wonder where the IPHE program is going. Is social interaction really the point of our interprofessional education? Is hanging out really enough to solve the enormous communication and coordination issues that plague our healthcare system?

Only being a first year medical student, I don't know for sure what lies ahead in the IPHE curriculum. From what we were told at the first IPHE day, though, it seems that our interprofessional education consists of three elements. First, there is a longitudinal, yearlong project – making a patient handout, a skit, a PowerPoint, or an educational video – for a community organization. Second, there are trivia

nights, pub crawls and other social events. And finally, there is a photo contest.

These things are nice, and it's encouraging to see that UCSF is so committed to interprofessionalism. I think that students should have more interschool social opportunities, and if we can do community projects too, that's great. But I wonder whether this curriculum will really make a difference in the future of professional communication in healthcare. As far as I can tell, our service project has no real relevance to interprofessionalism and doesn't require any particular specialized skills beyond those of a high school student. Correct me if I'm wrong, but I thought the point of interprofessionalism was that each profession has a special set of skills that can synergize with others for the benefit of patients. As it is, it wouldn't matter if I had a doctor, nurse, or dentist on my longitudinal team. In fact, it would probably be possible and easier for any one of the eight of us to do the entire project ourselves. I feel like we're missing out on

**STUDENT LOUNGE » PAGE 6** 

Photo by Mason Tran

**How Large?** A demonstration of just how large a large intestine is came during a lecture demonstration by Dr. Sanchez for the dental class of 2014, which is where this photo was taken. The GI system when stretched out can measure up to 15-18 feet.

# Off the Path-Cheryl Chun

Erin Currie Editor at Large

Cheryl Chun is an Associate Medical Writer at Blue Momentum. She did her Ph.D. in the lab of Hiten Madhani at UCSF.

#### Cheryl's Path

Cheryl entered graduate school with the plan of eventually being a P.I. She realized in her 4th year that she wasn't passionate about benchwork. She also thought about the current funding climate for academic research and realized that pursuing grants for the rest of her career wasn't appealing. So, Cheryl started to explore other options. She took part in many extracurricular activities at UCSF including the Graduate Students' Association (GSA), Women in Life Sciences (WILS), and the Business Club. She found them interesting and informative and they gave her the opportunity to see what other people had done after leaving the academic research path.

Ultimately, Cheryl was influenced in her career decision by her sister. Her sister had been through graduate school and decided to go into medical writing. Her sister let her know about an opening at her company.

Cheryl contacted the Vice President who was recruiting and ended up getting a job as an associate medical writer at Blue Momentum, a medical communication agency.

#### Cheryl's Work

As an associate medical writer, Cheryl helps Blue Momentum to provide strategic publication services to biotech and pharmaceutical companies. She helps them strategize how to discuss their data and distribute their results to the medical community. This can involve developing a timeline for conferences and publications leading up to a product launch. She also works with authors at her client companies to write papers, abstracts, and presentations.

Cheryl didn't find the transition from basic science to medical writing challenging. She initially took time to read tons of papers and found it similar to the learning curve at the beginning of graduate school. She thinks that many of the skills she developed

**OFF THE PATH » PAGE 6** 

# UCSF Domestic Violence Conference Set for Oct. 29

Synapse Staff Report

CSF's annual Domestic Violence Conference, this year entitled "Breaking the Cycle of Violence: Screening, Intervention, & Survivorship," will take place on Saturday, October 29 at Cole Hall from 8:30 a.m. to 5 p.m.

You can register for the conference at http://ucsfdvconference.eventbrite.com
There is a \$5 registration fee, which provides entry to all conference events and covers breakfast and lunch.

The conference's keynote address will be given by Patricia Van Horne, PhD, JD. Her

topic will be The Impact of Violence and Trauma on Child Development.

The conference will also hear from a panel of domestic violence survivors.

For UCSF students, attending the conference means that you can

- Fulfill UCSF orientation requirement for NEW students of all schools to attend a domestic violence educational event \*Bring UCSF ID card to the conference to get credit.
- Get one unit course credit in one day!

# **Events** »

#### DOG DAYS OF OCTOBER ARE BACK!

Fridays, October 21, noon-2 p.m., Millberry Union West, 111, Parnassus & Student Resource Center, Mission Bay Take time to unwind with the visiting dogs from Animal Assisted Therapy. There will be a new dog and a different focus every Friday to add to your well-being and success at UCSF!

#### **SPANISH LUNCH TALK**

Friday, October 21, noon-1 p.m., S 159, Parnassus

Come LEARN, EAT, and TALK Spanish! This one-on-one interaction will help you practice and build confidence when speaking Spanish. Sponsors: Latino Association of Pharmacy Students (LAPS)

# MUSLIM FRIDAY PRAYER SERVICES: PARNASSUS

Friday, October 21, 1-2 p.m., S 174, Parnassus

The Muslim Community at UCSF holds regular Friday prayer services (Jumah) for the UCSF Muslim community every week. Come join your fellow brothers and sisters for prayer and socializing. All are welcome! Questions? mc@ucsf.edu

# MUSLIM FRIDAY PRAYER SERVICES: MISSION BAY

Friday, October 21, 1:30-2 p.m., GEN-S536A, Genentech Hall, Mission Bay The Muslim Community at UCSF holds regular Friday prayer services (Jumah) for the UCSF Muslim community every week. Come join your fellow brothers and sisters for prayer and socializing. All are welcome! Questions? mc@ucsf.edu

# FIESTA FRIDAY NIGHTS AT THE DE

Friday, October 21, 6-8:30 p.m., de Young, 50 Hagiwara Tea Garden Dr, Golden Gate Park

Friday Nights provides a variety of interdisciplinary arts programs, including live music, poetry, films, dance, tours, talks and more. The café is open with a special Friday Nights dinner menu and a no-host cocktail bar. There are art-making activities for everyone! No admission required.

# MAKING CENTS: FORGING A NEW CALIFORNIA IN A TIME OF CRISIS

Saturday, October 22, 8:30 a.m.-5 p.m., Boalt Hall, Berkeley Law School, UCB The conference will address the causes of the California budget crisis, the live impact on communities, and the most innovative short-term and long-term strategies for forging a new California. Space is limited. Please register. www.makingcentsca.org. Sponsors include: UCB Grad School of Ed, UCSA, and the UCB Multicultural Development Offices.

#### 2011 HARVEST FESTIVAL

Saturday, October 22-Sunday, October 23, 10 a.m.-2 p.m., Ferry Building, Embarcadero, SF

CUESA & the Ferry Building celebrate food with a Harvest Festival. Come learn about the food system and enjoy unique harvest-themed activities. Stop by for two fun-filled days. Each day will feature cooking demos, free samples, music and kid activities.

#### SUNDAY STREETS: THE MISSION

Sunday, October 23, 11 a.m.-4 p.m., Sunday Streets 2011 continues the tradition of visiting diverse communities throughout the City with a variety of routes in different neighborhoods.

# STUDENT OF COLOR DISCUSSION GROUP (MISSION BAY)

Monday, October 24, noon-1 p.m., RSVP for location details, Mission Bay

The Group is for students of color to build community and talk about their experiences at UCSF. More info: http://bit.ly/SHCSstudentofcolor. Please RSVP larry.lariosa@ucsf.edu.

#### **BREATHE (MISSION BAY)**

Monday, October 24, 12:10-12:50 p.m., Gen S 202, Mission Bay

Take a break, breathe and get back on track with mindfulness meditation. Join SHCS for weekly drop-in mindfulness meditation sessions.

#### **TRANSGENDER HEALTH 101**

Tuesday, October 25, noon-1 p.m., HSW 301, Parnassus

Join noted transgender health expert Dr. Maddie Deutsch for an overview of the health needs of transgender patients young and old, including hormonal, surgical, and primary care. Sponsors: UCSF Center for LGBT Health & Equity as part of UCSF Diversity Celebration. More info: http://bit.ly/UCSF\_LGBT

#### **MISSION BAY FARMERS' MARKET**

Wednesday, October 26, 10 a.m.-2 p.m., Gene Friend Way Plaza, Mission Bay Enjoy more local produce at your doorstep throughout the year! Shop smarter and bring your shopping bag to cut down on plastic bag use! Sponsors: Pacific Coast Farmers' Market Association

#### **PARNASSUS FARMERS' MARKET**

Wednesday, October 26, 10 a.m.-3 p.m., ACC, 400 Parnassus

Shop the Farmers' Markets on Wednesdays to pick up locally grown produce and more!

#### STUDENT OF COLOR (PARNASSUS)

Wednesday, October 26, noon-1 p.m., RSVP for location details, Parnassus This group is for students of color to build community and talk about their experiences at UCSF. More info: http://

experiences at UCSF. More info: http://bit.ly/SHCSstudentofcolor. Please RSVP larry.lariosa@ucsf.edu.

#### **UCSF RUN CLUB**

Wednesday, October 26, 5:30-6:30 p.m., Millberry Union Central Desk, Parnassus Please drop by and join UCSF Fit & Rec for a run! Each Wednesday night one of two routes will be run at a 9-11 minute per mile pace at various distances that are three-six miles each.

#### WOMEN'S HEALTH DISCUSSION SERIES: EVERYTHING YOU NEED TO KNOW ABOUT PAP (WHO, WHEN, WHY)

Thursday, October 27, noon-1 p.m., TLC CL 215-216, Parnassus

Student Health will feature three workshops about women's health issues. Speakers include Susan Rosen, MD, and Alison Boden, MPH, RD.

#### MUSIC BY PRUDENCE: 2010 OSCAR-WINNING FILM

Thursday, October 27, 12:15-1 p.m., SFGH This music sends a clear message of how the lives of us all, abled and disabled, are enriched when the barriers that separate us are broken down. There will be snacks!

Part of Diversity Celebration at UCSF. More info: http://bit.ly/UCSF\_Diversity

# CAL ACADEMY OF SCIENCE: ZOMBIE NIGHTLIFE

Thursday, October 27, 6-10 p.m., Cal Academy, Golden Gate Park

Zombie neuroscience, Zombie Drag Show and Costume Contest emceed by Peaches Christ, roaming zombies, zombie makeovers and much more! Music by DJ Tomas Diablo.Tickets: \$12 (\$10 at the MU Central Desk)

#### **BAGEL TUESDAY**

Tuesday, November 1, 9-10:30 a.m., Genentech Hall, 2nd Floor, Mission Bay UCSF students, come enjoy free bagels and coffee on the first Tuesday of every month. Mingle, fuel up, then get on with your day. Sponsors: Student Services at Mission Bay

#### **BREATHE (PARNASSUS)**

Tuesday, November 1, 12:10-12:50 p.m., TLC CL 211-212, Parnassus

Take a break, breathe and get back on track with mindfulness meditation. Join SHCS for weekly drop-in mindfulness meditation sessions.

#### **BENT FOR LGBTQ STUDENTS**

Wednesday, November 2, noon-1 p.m., RSVP for location details, Parnassus BENT is a social/support/informational group for LGBTQ students. Topics include the impact of LGBTQ students on campus (ie: body image, dating and relationships, professional identity, "outness," etc). Free lunch is provided. Please RSVP at least one day in advance to Larry.lariosa@ucsf.edu

#### **EVERYDAY LIFE AND LEARNING**

Thursday, November 3, 4:10 p.m., Alumni House, Toll Room, UC Berkeley

Learning is integral to conceptions of knowledge, inquiry, revolution, and changing practice. Accordingly, social scientists have substantive stakes in the issue – historical, cultural, spatial, political, and social. In engaging questions of learning, Jean Lave finds it useful and interesting to start from that multiply excluded, but always central foil, "everyday life."

#### LOST IN TRANSLATION

Monday, November 7, 4-5 p.m., Mission Bay Student Resource Center

A monthly discussion group for International Students and Post Docs. More info. http://bit.ly/SHCS-internationIstudents Sponsors: SHCS, ISSO & Student Services at Mission Bay

# SEEING PATIENTS: UNCONSCIOUS BIAS IN HEALTH CARE

Wednesday, November 9, noon-1 p.m., Cole Hall, Parnassus

Augustus White, MD, PhD is Professor of Medical Education & Orthopedic Surgery at Harvard and the author of Seeing Patients. He was the first African American graduate of Stanford's medical school and has had an exemplary career using his life experiences and clinical practice to examine how patient care is affected by the unconscious prejudice of health care providers.

#### **SELF CARE 101 (PARNASSUS)**

Wednesday, November 9, noon-1 p.m., RSVP for location details, Parnassus Join this workshop that incorporates behavioral techniques and educational tips. RSVP to Larry.lariosa@ucsf.edu by 11/8.

# **Announcements** »

# UCSA STUDENT OF COLOR CONFERENCE: REGISTER TODAY!

Friday, November 11, 9 a.m.-5 p.m., UC Davis

The UCSA Student of Color Conference provides a venue for students of color and allied leaders from all 10 UC campuses to strategize around statewide actions and build leadership. If you are interested in attending, please contact Lawrence Lin at Lawrence.Lin@ucsf.edu. Sponsors: UCSF GSA and ASUC. More info: http://ucsa.org/section/view/conferences.

# MISSION BAY LIBRARY NOW OPEN SATURDAYS!

Saturday, October 15, 10 a.m.-6 p.m., Rutter Community Center, Mission Bay The UCSF Library is extremely pleased to announce the Mission Bay FAMRI Library in the Rutter Community Center is expanding its hours. Effective October 15, the Mission Bay Library will be open on Saturdays from 10 a.m-6 p.m. http://bit.ly/Library\_MBopenSaturdays

# HACU ACCEPTING INTERNSHIP APPLICATIONS FOR 2011-12

The Hispanic Association of Colleges and Universities (HACU) is accepting online applications for its Internship Program for spring, summer & fall 2012. Online application and additional information is available online at <a href="http://bit.ly/HACU\_Internships">http://bit.ly/HACU\_Internships</a>

#### SCIENCE AND TECHNOLOGY LEADERSHIP ASSOCIATION: CALL FOR VOLUNTEERS

Get involved with an international network of future leaders in science and technology, in addition to world-class leadership training and the opportunity to join STeLA 2012 in Tokyo. Learn more: http://bit.ly/STELAwebsite.

#### SAVE THE DATE FOR THE FIRST ANNUAL ALLIES FOR HEALTH CONFERENCE: WORKING TOGETHER TO PROMOTE HEALTH EQUITY

Saturday, November 5, 8 a.m.-5:30 p.m., Cole Hall, Parnassus

Learn how to be an ally for health and minimize health care disparities, while challenging your basic assumptions about patient care outcomes. Receive one elective credit by registering for Special Issues in Healthcare, FCM 170.01E and attending the conference. Please register: http://bit.ly/StuHealthEquAlliance\_Registration October 5. Sponsors: Student Health Equity Alliance, SAA, OSL, SAC

Have an announcement that you would like to include in Synapse? Please email synapse@ucsf.edu.

# Classifieds »

#### RETRO GLAM HEADSCARF

Wear a beautiful chiffon 20"x 60" headscarf in the Kelly Wrap, around the neck, or as a light wrap, and you'll feel like a 60's fashion icon! Available online at www.ninisniche.etsy.com

#### SUNSET 76 AUTO REPAIR UCSF DISCOUNT

10% off all auto repairs of \$50or more. OPEN Saturdays! 1700 Noriega Street at 24th Ave. Telephone (415) 753-9635. More discounts at: www.Sunset76.com

# Features »

# **UCSF Journal Club Recent Research by UCSF Scientists**

Alexandra Greer Science editor

MICROBIOLOGY: Chlamydia trachomatis co-opts the FGF2 signaling pathway to enhance infection. Kim, J.H.; Jiang, S.; Elwell, C.A.; Engel, J.N. PLoS Pathogens 7(10): e1002285.

Heparan sulfate proteoglycans (HSPGs) are sugar molecules found on the surfaces of essentially all animal cells. They mediate a multitude of different processes, such as blood coagulation, cell-cell recognition, and are even used by some pathogens including chlamydia- to gain entry into our cells. While it has been known that chlamydia requires HSP interaction to gain entry into cells, it was not clear how this occurs. In this paper, researchers found that cell entry requires the binding of host fibroblast growth factor 2 (FGF2) to its FGF receptor on the host cell – a process that also typically requires HSPG interaction. FGF2 present outside of the host cell binds to the bacterial cell, which allows for the bacteria to get stuck to a host mammalian cell via binding of FGF2 to its receptor. This binding induces internalization of the receptor:ligand complex along with the bacterium.

**IMMUNOLOGY:** Basal LATdiacylglycerol-RasGRP1 signals in T cells maintain TCRa gene expression. Markegard, E. et al. (Weiss, Roose) PLoS One 6(9):e25540.

Throughout a naïve T-cell's lifetime, it receives signals via its T-cell receptor (TCR). Some of these signals are strong and induce activation of the cell, but others are weaker and are intended to remind the cell to stay alive. Without constant, lowlevel signaling via the TCR, a naive T-cell will die of neglect. While we understand the signaling pathways behind strong, activating TCR signals, we understand much less about the signaling pathways involved in low-level, survival signaling. Here, researchers have identified the signaling adaptor LAT and RasGRP1 in transducing low-level, non-activating signals that maintain TCR expression in the cell. The researchers propose that this low-level signaling serves to regulate TCR

expression in the T-cell, thereby controlling the potential for further T-cell activation.

**NEUROSCIENCE:** Corridors migrating neurons in the human brain and their decline during infancy. Sanai, N. et al. (Rowitch, Alvarez-Buylla) Nature [epub ahead of print].

Since it was shown roughly a decade ago that adult neurons in the mouse brain can regenerate, there has been both significant research and significant controversy surrounding which types of neurons can initiate this, where they move from and to, and at what developmental stages they promote regeneration. In non-human mammals, it has been shown that immature neurons found in the subventricular zone (SVZ) of the brain migrate in large groups to the olfactory bulb. However, in humans there remains controversy over whether adult human SVZ astrocytes can generate neural cells or migrate in vivo. Here, researchers have found an extensive corridor of migrating immature neurons in the SVZ of human infants destined for both the olfactory bulb and the prefrontal cortex that diminishes almost entirely into adulthood, thereby settling much controversy and introducing the possibility for treatment of neonatal neurological injury.

MICROBIOLOGY: **Proteomic** analysis of human skin treated with larval Schistosome peptidates reveals distinct invasion strategies among species of blood flukes. Ingram, J. et al. (McKerrow). PLoS Neglected Tropical Diseases 5(9):e1337.

Shistosomes are a genus of parasitic worm that burrow into the skin and cause chronic disease and are very common in tropical areas of Africa. To get into its host, the worm burrows into otherwise healthy skin by essentially 'digesting' its way through - by releasing proteolytic enzymes that allow the worm to penetrate the skin and burrow inside. S. mansoni, which is the

**JOURNAL CLUB » PAGE 6** 

# Science Reviews You Can Use What is the effect of Vitamin D on muscle strength?

Bryan Ausink Staff Writer

## A Question

Sun and muscle are often seen together: compare the sunshine on Muscle Beach to the fog of Ocean Beach, or the beforeand-after snapshots found in supplement testimonials, and you will find a nearly ubiquitous pallor in the latter and the bronze kiss of the sun in the former. One explanation for these phenomenon is that warmth encourages disrobing, which encourages vanity and steroids and the unscrupulous purveyor of MuscleGro 5000 employed the tanning to make the after shots look more muscular than they really were. Many would accept the above as a sufficient explanation, however a second possibility lurks in the shadows; could it be that sunshine actually helps muscles grow? Could vitamin D supplementation improve muscle strength?

#### Some Data

To answer this question I found a systematic review and meta-analysis published this month in Osteoporosis International titled "The Effect of Vitamin D Supplementation on Muscle Strength [1]." The studies included in this review used various forms of vitamin D supplementation, some of which combined it with calcium and only one study using timed sunlight exposure as an intervention for institutionalized patients with Alzheimer's. Dosing varied from 400 IU of D3 per day to a one-time dose of 600,000 IU of D2 by injection. The outcome measures were grip strength and leg strength and not muscle size and appearance such as was assessed in our MuscleGro 5000 testimonial. In total, 17 randomized controlled trials involving 5,072 human subjects mostly over the age of 60 that investigated the topic of vitamin D supplementation on muscle strength were included in the review. Blood tests measuring the inactive form of vitamin D, 25-hydroxy vitamin D (25(OH)D), were taken at baseline to determine the nutrient status of the participants.

Meta-analysis showed no significant effect of vitamin D supplementation on grip strength or proximal lower extremity strength for individuals whose preintervention levels of 25(OH)D were greater than 25 nmol/L of blood. So if supplementation won't improve the muscle strength in vitamin D replete individuals then getting a tan certainly won't help these folks lift the end of their car to retrieve a tub of ice cream (for calcium, ahem) that rolled under it.

That's all well and good for those swarthy vitamin D-replete individuals but what about the estimated one billion people worldwide who are deficient in vitamin D? This includes darker-skinned women, older people in residential care and quite possibly a few cave-dwelling UCSF students in fogland. In the four studies whose 465 participants began the trial with <25 nmol/L 25(OH)D significant gains in hip muscle strength were found.

#### My Application

These results are consistent with a general rule of supplements that they only work if you are deficient in that nutrient. The art of the salesperson is then to convince everyone that they are indeed deficient. Since very little vitamin D is obtained from diet, the conversion of 7-dehydrocholseterol to previtamin D3 in the skin by solar ultraviolet B radiation is the primary source of vitamin D. An Australian study calculated that when the ultra-violet index (UVI) is above 3, sufficient production can be accomplished in <30 minutes on the arms and face in the fair skinned among us [2]. The UVI can be checked on weather sites and peaks at 7 on a clear day in San Francisco.

While vitamin D receptors have been found in muscle tissue, the exact mechanism of interaction is not yet known. Some interesting but inconclusive tidbits about

**SCIENCE REVIEW » PAGE 6** 

tel: 476-2211 | fax: 502-4537

synapse@ucsf.edu | synapse.ucsf.edu

# Synapse

The UCSF Student Newspaper

#### Staff

Chelsea Anne Young | EDITOR Erin Currie | AT LARGE EDITOR T. Booth Haley | ASSOCIATE EDITOR Oliver Ubeda | ASSOCIATE EDITOR Jeyling Chou | FEATURES EDITOR Ben Wolpaw | FOOD EDITOR Linda Chhoa | PHOTO EDITOR Alana Ju | PHOTO EDITOR Alexandra Greer | SCIENCE EDITOR Tim Neagle | MANAGING EDITOR Jennifer Rosko | PRODUCTION EDITOR

#### About

Synapse is the UCSF student-run weekly newspaper which runs on Thursdays during the academic year and monthly during the summer. Synapse seeks to serve as a forum for the campus community. Articles and columns represent the views of the authors and not necessarily those of the Board of Publications or the University of California.

#### **Submissions**

Announcements and letters should be submitted six days before publication. All submissions can be either emailed or mailed. All material is subjected to editing.

#### Subscriptions

500 Parnassus Avenue, Millberry Union 123W, San Francisco, CA 94143

Subscriptions cost \$20/year (\$40/outside U.S.).

#### Advertising

Paid advertisements do not necessarily reflect the views of Synapse. Synapse and its editorial board reserve the right to decline advertisements promoting false or misleading claims, known health risks, or content deemed by the editors to be antithetical to the interests of UCSF students or the UCSF community. Synapse does not accept advertisements from tobacco or alcohol manufacturers, or sexually oriented personal ads. Synapse reserves the right to run any ad with a disclaimer.

## Reviews »

## **Movie Review**

# Real Steel: Robots **Impart Human Values**

Oliver Ubeda Associate Editor

 $\blacksquare$  t is the year 2020, the really not-so-distant future where boxing, the UFC, MMA and any other kind of human fighting sport is not enough to satisfy the people's appetite for entertainment violence. People are into robot fighting. The sport consists of very large remote-controlled robots fighting each other in the ring until one of them destroys the other.

Real Steel is the name of the championship bouts from the WRB (World Robot-Boxing) League. The sport is controlled by Farra Lemkova, a wealthy lady who has gotten reclusive fighting-robot designer Tak Mashido out of retirement to design Zeus, the ultimate fighting bot. Zeus has been designed with the best equipment and systems that money can buy. He is the world champion in the WRB league and the robot to beat.

Charlie Kenton, played by Hugh Jackman, is a down on his luck ex-boxer that now drives his old fighting robot "Ambush" around the country to county fairs, and illegal off-league robot fights to make some quick cash. Charlie is a really good boxer but basically a selfish jerk that continues to make all the wrong choices and consequently can't catch a break. Charlie learns that one of his old girlfriends has died and he is told that he has to show up

to a custody hearing for his eleven-year old son Max, played by Dakota Goyo (young Thor in the *Thor* film).

Max's rich aunt and uncle want custody of the boy so when Charlie, as the next of kin, shows up to "sign off his rights" to Max he realizes there is money to be made from the situation. He strikes a deal with Max's uncle Marvin to sign off custody in exchange for money. Marvin has planned a second honeymoon for him and his wife Debra in Tuscany, so he wants Charlie to keep Max for the summer. The deal is made that if Charlie will keep Max for the summer and sign off custody at the end of summer he will get \$50,000 now and another \$50,000 later.

Max quickly finds out that his dad is not the best at making decisions and they soon find themselves breaking into a junkyard in the middle of a rainy night looking for spare robot parts. Out of the mud Max digs out Atom, a second generation (G2) sparring bot that has been inexplicably thrown away intact. Max gets Atom cleaned up and fixed up and then Max asks Charlie to get Atom a fight. Charlie is very reluctant because he thinks he is wasting his time with this old and smaller

**REAL STEEL » PAGE 6** 

# **Movie Review**

# The Tree of Life is an **Epic and Beautiful** Film Like No Other

Eric Van Uffelen Department of Microbiology and Immunology

Writer-director Terrence Malick's *The* years, and they are each among some of the Tree of Life is among the greatest of films I have experienced, and you can now watch it at home, since you probably missed it during its limited theatrical release this summer. Even if the film may not be for all, it would be a difficult and unconvincing argument that it is not impassioned, daring and beautiful, featuring sequences that I was fortunate to see on the big screen three times. It is on par with 2001: A Space Odyssey in its ambition and resonance.

I wrote the following preamble before seeing The Tree of Life, as a way to outline my anticipation. Several months later, I still find myself thinking about The Tree of Life, and I wanted to put forth something that I've yet to come across since reading several reviews from major professional critics. I found that I was not alone in wanting to address the significance of the film, given Malick's history – he has written and directed only five films in nearly thirty

most beautiful works in cinema. I believe Malick's philosophical pedigree informs the film, which I'll touch on towards the end of the review.

I had been looking forward to The Tree of Life for years. It has its origins from a project, Q, which Malick started after his second film, Days of Heaven (1978), but then partially abandoned. Two decades passed, during which he taught in France, before Malick made his triumphant return with arguably the best war film ever made, The Thin Red Line (1998), adapted from James Jones's 1962 autobiographical novel about a U.S. Army company fighting on Guadalcanal during WWII. (Steven Spielberg's more bombastic crowd-pleaser Saving Private Ryan dominated the awards circuit and box office instead that year.) Malick's long and reclusive disappearance

TREE OF LIFE » PAGE 6

## Puzzles »

#### The Weekly Crossword by Margie E. Burke ACROSS 1 Allergic reaction 5 Robin Cook thriller 9 Umpire's call \_ and dangerous 15 Summon, as a cab 16 Had no doubt 17 Close call 18 Business partner 20 Insertion mark 21 Children of Japanese immigrants 22 Cougar or Lynx 23 Rocker Adam 24 Part of B.A. 26 Hullabaloo 28 Old TV canine 30 Bing Crosby.

Copyright 2011 by The Puzzle Syndicate

- 65 Iron-rich meat
- 37 In a lazy manner 66 Dragon's home **38** Watering holes 67 \_ gin fizz
  - **68** Winery process 69 Long ago 70 Pinball infraction 11 Greek salad
  - **71** Word before mail or crime

#### DOWN

- 1 Alfalfa or Buckwheat
- 53 Lackluster

competitor

- 55 Zodiac figure
- 56 Barnyard brooder

e.g.

34 Artless one

**41** Nip in the bud

"Hello!" tag

46 Current-measur-

ing instrument

43 Civil uprising

**44** Allowing

48 Hershey

42 Word on a

- 58 Sky color 61 Band together
- 63 Bruce Wayne and Batman, e.g.

- 52 \_\_\_ you kidding? 2 Obscure stuff
  - 3 Brainpower
  - 4 Roll-call response
  - **5** Street protest sound
  - 6 Desert green spot

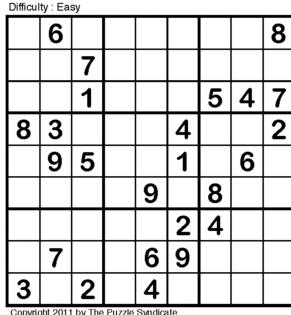
- 7 Pageant title
- 8 Medicinal herb **9** Follow a Vail
- trail 10 Amazon snake
- cheese 12 Still-life subject
- 14 Keep back
- 19 Tuscany ta-ta
- 27 Events
- **30** Snippy
- 31 Eye part
- 32 Nightmare street 59 Grated lemon
- 33 Sandwich bread 35 Who follower
- 36 Hoopster's target
- 38 Bikini top

- 39 Crest alternative
- 40 Like a candlelight dinner
- 45 Interstellar cloud 47 Rotator cuff
- injury 49 "Cash Cab"
- material 50 Like some
- fingerprints
- 25 Entertain lavishly 51 Come forth
- 53 Slobber 29 One with a habit 54 Put back to zero
  - 56 Luminous ring
  - **57** Zeal

  - rind
  - 60 Jamaican fruit
  - **62** Near, poetically
  - 64 Before, to Byron

#### SUDOKU

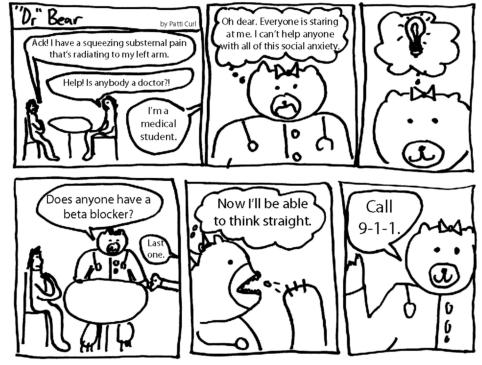
Edited by Margie E. Burke



#### HOW TO SOLVE:

Each row must contain the numbers 1 to 9; each column must contain the numbers 1 to 9; and each set of 3 by 3 boxes must contain the numbers 1 to 9.

**SOLUTIONS** » PAGE 7



# Articles continued »

## **Student Lounge**

#### **» FROM HOME PAGE**

an incredible opportunity to recognize how much we will need each other's real skills.

It is extremely difficult to construct a large interprofessional program, and the one at UCSF is only a few years old. I applaud the organizers for their tenacity and imagination. It's important, though, that as the program ages it provides educational opportunities and not purely social ones. What about presenting some substantive issues, like whether nurses

should be able to call themselves doctors in the patient setting, or how broad the prescription power of pharmacists should be, or how reimbursement should work for interprofessional groups? There are so many important questions that could be addressed by IPHE and could make a huge impact on the way we all practice our professions in the future. It's an important opportunity that I think we're missing. Communication and socialization are ways to open the door. Now we need the courage to walk through it.

Wesley Yu is a first-year medical student.

#### " EDOM DACE E

**Real Steel** 

» FROM PAGE 5

sparring bot. Young Max bonds with Atom and learns that there is something special about him. Max knows that with Charlie's boxing skills and knowledge Atom can win fights. So Atom starts to win one fight after another in a journey that takes them all to the WRB and eventually a Real Steel match up against Zeus.

Real Steel is a boxing movie at heart with the science fiction robot element thrown in and surprisingly a deeper emotional tone about the power of love, redemption, and believing in yourself. The movie has a little bit of a "Rocky" feel and you can't help but cheer for Atom, the underdog, as he rises to fight the best of the WRB League bots. The movie also has some elements of "The Champ", another boxing movie, as Max and Charlie work together as a father and son team to realize their dreams and learn to love each other along the way. Don't worry though, besides the life lessons to be learned from *Real Steel* there is plenty of robot fighting action, and funny moments to satisfy and entertain not only the people of 2020 but also those of us still in 2011.

Oliver Ubeda is a second-year pharmacy student.

### Off the Path

#### **» FROM HOME PAGE**

in graduate school, such as presenting and writing, are directly applicable to her career.

Cheryl loves many aspects of her career that differ greatly from academic research. Her career moves quickly and has defined projects with start and end dates. "When they are done, they're done." She also gets to deal with a very diverse range of topics such as therapeutics, oncology, and transplantation, which means that she is always learning new things. She also loves that her job is 9-5, five days a week. The largest downsides that she faces are that

clients can be difficult and she sometimes has to bite her tongue.

#### Cheryl's Advice

Cheryl acknowledges that "it's easy to stay tied to the bench but it's important to get a broader picture" if you desire to get off the academic career path. "Talk to people. See what they like and don't like about their careers." Cheryl recommends being involved in extracurricular activities for getting experience beyond benchwork. She also emphasizes the importance of networking. Cheryl had previously been in contact with the VP of Blue Momentum because of her involvement in GSA, which made it easier for her to contact him about a position.

Erin Currie is a fifth-year graduate student.

### Tree of Life

» FROM PAGE 5

from Hollywood, coupled with the strength and caliber of The Thin Red Line, made anticipation of his next film an uncertain but hopeful endeavor in and of itself. With The New World (2005), about the colonization of Jamestown and the romance between Captain John Smith (Colin Farrell) and Pocahontas (O'orianka Kilcher), Malick certified himself as a master auteur, an anomaly in the big-budget studio arena who places more importance in beauty and consciousness than in streamlined plots or easily defined archetypes, though always in service of the story and characters. His quick turn-around in announcing The Tree of Life later that same year was of course too good to be true. Initially planned for production in early 2006, it was not filmed until 2008 - a role that Heath Ledger was to play had to be recast - and then was further delayed by extensive post-production work and numerous distribution issues.

So now then: the wait was worth it. The Tree of Life is ostensibly about Jack O'Brien, played as an adolescent by Hunter McCracken and as an adult by Sean Penn. Jack grows up in 1950s suburban Texas with two younger brothers. His parents, noted only as Mr. and Mrs. O'Brien, are played by Brad Pitt and Jessica Chastain. Much of the film is a coming-of-age story and reminiscence, an intimate family drama as told through the impressionistic experiences of the eldest son. Towards the opening of the film, narration by Mrs. O'Brien offers that "there are two ways through life: the way of nature and the way of grace." This dichotomy is reflected in the parenting styles of Mr. and Mrs. O'Brien, and must be reconciled by Jack. An event early on in the film provides the tone and impact through which the audience views the story of the O'Briens.

That, vaguely, is the story of *The Tree of Life*, and this would be enough: at this level, the film gets at the role of man in his family, neighborhood and career. Malick infuses everything in his films with beauty, and the autobiographical nature of this latest work lends an immediate, relatable aspect. Pitt gives one of the best performances of his career, and Chastain marks her entry into major motion pictures with a delicate, nuanced performance. The cinematography by Emmanuel Lubezki (who shot Malick's *The New World* as well as *Children of Men*, among others)

is exquisite, and the production design by Jack Fisk (who worked with Malick on his two previous films, as well as *There Will Be Blood* and *Mulholland Dr.*) is simple but fully realized.

I strongly believe that what the film is about - and what gives it more permanence and depth - is how, why, and (unfortunately) when we ascribe meaning. There is a great deal more at work here than a coming-ofage story, as endearing as that might be. As with all of my reviews, I try not to spoil anything that isn't revealed in the initial trailer, but the one for The Tree of Life (which I encourage you to watch, to help inform your expectations) did contain parts of its cosmological sequence. The film is allegorical and contemplative, using the creation of the universe and the Earth as a means of exploring the relevance of one's own life, of trying to find a place in both time and space - which is really what Malick's films share in common, thematically: the role of mankind in nature. The Tree of Life might be seen as the ultimate culmination of what Malick has been exploring with his previous films (not to lessen their impact and individual strengths).

When I write that the film is about ascribing meaning, I'm not only concerned with Jack; this theory applies to the rest of the characters, particularly Mrs. O'Brien, as well as Malick and the audience. There are several moments that might seem challenging, and they are: what does this mean? Why is this happening? At what point does something abstract become something concrete, and is this act of naming and cataloging a loss or a boon? All of this has a purpose in The Tree of Life, and is not ponderous for its own sake, or simply to include some gorgeous sequences just because the technology now allows it.

Finally, some trivia about Malick, which I believe informs the proper review: he graduated summa cum laude from Harvard with a philosophy degree in 1965, and became a Rhodes Scholar, but left Oxford after a disagreement over his thesis of the concept of the "world" of Kierkegaard, Heidegger, and Wittgenstein. He taught philosophy at MIT and was a freelance journalist before turning to film, earning an MFA at the American Film Institute. Malick is particularly well suited, as both a philosophic scholar and an impressionist filmmaker, to bring such an epic and complicated work as The Tree of Life to fruition.

## **Science Reviews**

#### » FROM PAGE 3

the topic include a positive correlation between vertical jump velocity in teenage girls and reports of type II muscle fiber atrophy in the vitamin D deficient elderly.

Given that the 16 of the 17 studies included in the review had a population of adults aged 60 and older, the generalizability of the results to the aforementioned cavedwelling UCSF student is poor. However if you are someone who doesn't get much sun, particularly if you are a dark-skinned individual or someone who has been around for awhile, it would be prudent to talk to your healthcare provider about testing your 25(OH)D. For those of who have patients that meet the criteria above, go forth confident that your decision regarding vitamin D supplementation is based on the best current evidence.

science Reviews You Can Use is a collection of articles summarizing recent review papers in the allied health fields. The goal of these articles is to provide more sober and responsible science journalism than is typically obtained from covering recent "breakthroughs" while providing examples of practical application to something we all do every day: move.

#### References

1. Stockton K, Mengersen K, Paratz J, Kandiah D, Bennel K. (2011) Effect of vitamin D supplementation on muscle strength: a systematic review and meta-analysis. Osteoporos Int 22:859-871

 Bilinski S, Kellie K. (2011) Burning daylight: balancing vitamin D requirements with sensible sun exposure. Medical journal of Australia. 194:345-348

Bryan Ausink is a third-year physical therapy student. Questions about this article? Unable to find the full text online? Email bryan.ausink@gmail.com.

## **Journal Club**

#### » FROM PAGE 3

most common shistosome parasite, uses the enzyme cercarial elastase to digest elastin in our skin— but it is not known what enzymes other shistosomes use. Here, researchers performed proteomic analysis of human skin biopsies treated with either cercarial elastase or an enzyme hypothesized to digest elastin from the closely relates Shistosoma japonicum to determine substrates of each enzyme. They found that similar proteins in human skin were digested by the two enzymes and suggest that the gene for cercerial elastase underwent genetic amplification in the process of adapting to humans.

Alexandra Greer is a fourth-year biomedical sciences sudent. For comments or paper suggestions, email alexandra.greer@ucsf.edu.

#### SAVE THE DATE

GSA Game Night 6-9 p.m. Thursday, November 10 Genentech Hall Atrium, MB

Test your game skills, learn a new game or meet new friends. Bring your favorite games to share.

\*\*dinner & beverages provided\*\*

Read Synapse online at synapse.ucsf.edu

Solutions »

# Graduate **Students' Association**

## Piled Higher and Deeper: The Movie

6:15 p.m. **Thursday, November 17 Genentech Auditorium, Mission Bay** Simulcast to HSW 301, Parnassus

Jorge Cham has tapped into the psyche of graduate students everywhere through his comic strip, books and presentations. Now there's the movie! Join the GSA for a screening, snack and a bundle of laughs as you normalize the insanity of your PhD seeking lives.

Pizza compliments of *Pubget*: the search engine for life science PDFs.

9	6	_		5				8
5	4	7	7	2	8	6	3	9
2	8	1	တ	3	6	5	4	7
		6	5	7	4	9	1	2
7	9	5	2	8	1	3	6	4
~	2	4	6	9	3	8	7	5
6	5	9	7	1	2	4	8	3
4	7	8	3	6	9	2	5	1
3	1	2	8	4	5	7	9	6

# Read Synapse online at

synapse.ucsf.edu



gsa.ucsf.edu



Open M-F 7 am-5 pm; Sa & Su 8 am-5 pm



Featuring Lavazza espresso

Calzonnettes Sandwiches

**Smoothies Pastries** 

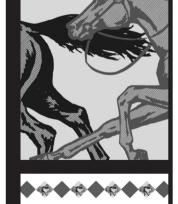
LAVATIA





Get a gourmet taste of Italy Grilled Panini → Pasta → Polenta → Eggplant Parmigiana Espresso + Gelato + Homemade Pastries + and more We offer student discounts and we're open late Monday through Thursday!

7 am-6 pm, Monday-Thursday 7 am-4 pm, Friday Millberry Union, Plaza Level







Look sharper. See better. Find us easier, too. Contemporary prescription glasses, sunglasses, and contact lens fitting

Millberry Union, I-level For appointment & information 415.476.3100 Visit Monday-Friday, 9 am-5 pm



look sharper ds of this Campus Life Services retail partne



Miss the companionship of a furry friend? Head to one of the campus

# Dog Days!!

Friday, October 21 noon-2 p.m.

Student Activity Center MU 111W, Parnassus

Student Resource Center 550 Gene Friend Way, MB

#### **Beeson & Company**

Fee-Only Financial Planning and Investment Management

- Original UCSF Financial Planning Department Staff • Expertise in UC Retirement Plans and Benefits
- Largest Provider of Fee-Only Financial Planning to UCSF Faculty and Staff
- Celebrating our 17th Year in Business



Services Provided:

#### **Comprehensive Financial Planning**

- Written financial plans custom tailored to clients needs and goals
- · Specific financial planning recommendations
- · Cash flow and retirement income projections from all sources
- · Objective analysis, not sales or marketing driven

#### **Project Based Consulting**

· Hourly fee

#### **Investment Management of Retirement and Personal Assets**

- · Quarterly written reports
- Specific recommendations Very knowledgeable about UC and Fidelity Funds
- · Low quarterly fee

Phone 510.232.5339 • Fax 510.232.5997 www.beesonandco.com • john@beesonandco.com



# SUNSET 📆 AUTO REPAIR SHOP

1700 Noriega Street @ 24th Ave (415)753-9635

We are the Shop you can "really" TRUST!

Visit us @ www.Sunset76.com See our Excellent Reviews @ www.YELP.com

TRANSMISSION OIL CHANGE FLUSH

BRAKE

30/60/90 MILE MAINT. SERVICE

INCLUDES: Oil Change,

\$137.<sub>76</sub> |

4 Qts. 5/30 or 10/30

Plus \$4.00 Waste Fee & Tax

Most Cars & Trucks Expires 1/31/12

Plus Tax.

Brake Pads or Shoes, Resurface Rotors or Drums, Inspect & Bleed Hydraulic System Most Cars & Trucks Expires 1/31/12

Tune-up, Radiator & Transmission Flush, Complete Vehicle Inspection Most Cars & Trucks Expires 1/31/12

## Special UCSF Discount

10% off ALL Auto Repairs of \$50 or more, Expires 1/31/12 Call for an estimate! Please present coupons prior to service.

Smog Check \$34.76 Plus Cert. \$8.25, \$1.99 ET fee, FREE Retest Valid for Most Cars/Trucks. All coupons may not be combined with any other discount. Expires 1/31/12

707 Parnassus. 4th floor San Francisco, CA 94143 415,476,9656

motor oil, Filter & Check and Top off fluids Plus \$2.00 Waste Fee & Tax

Most Cars & Trucks

Dental Emergencies - walk in\* Hours: Daily 8-5pm\* \*except Tuesdays 8am-2pm

**OPENING JULY 5th, 2011** 

#### **UCSF AEGD Post-Doctoral Dental Clinic**

**Comprehensive Care by Advanced Education General Dentistry Residents with DDS degrees** 

**Digital X-rays** Cleanings Whitening

**Tooth-Colored Fillings Precious Metal Crowns Porcelain Crowns Bridges** 

**Laser Dentistry Partial Dentures Full Dentures** 

**Tobacco Cessation Hypnosis for Dental Fear Nitrous Oxide Sedation Root Canal Therapy** 

Free whitening (\$80 value) for the first 100 patients who begin treatment



Affordable High Quality **Dental Care** 



# The RAMP

#### **UCSF Staff and Students** Please bring this in for a 15%

discount on food

Monday-Friday at The RAMP restaurant! (excluding special offers)

> Join us for our Happy Hour Monday-Friday 5-7pm

-Drink & Appetizer Specials Weekend Brunch 9:30-5:30 Live Salsa/Brazilian on Saturday/Sunday The Sun, The Water, The Ramp!

855 Terry Francois St Where Mariposa St intersects with Illinois St (415) 621-2378 www.ramprestaurant.com www.facebook.com/TheRampSF

The RAMP



839 Irving St between 9<sup>th</sup> & 10<sup>th</sup> Ave

415-742-0049

www.pearlonirving.com

Tuesday – Saturday, 11am – 6pm

10% off all jewelry with this ad. Expires 10/31/11 cc: 103111

Join us in supporting our local community!



- Featuring Bay Area Artists
- Handmade Jewelry
- Fabulous Photography
- Custom Designs
- Bi-monthly Trunk shows
- One of a kind pieces



# **Duncan Wheeler** REALTOR

VANGUARD PROPERTIES



Castro/Noe top floor flat 3/2 \$849K

real estate needs.

Whether you are buying, selling or investing, I can help you with all of your



2501 Mission Street San Francisco, CA 94110



3/2 with in-law \$594K

**Duncan Wheeler, MBA Top Producer** 

Desk (415) 321-7051 Efax (415) 321-7251 Cell (415) 279-5127

duncan@vanguardsf.com www.Duncanwheeler.com www.vanguardsf.com

"Your referrals are always appreciated!"

DRE #01385168



#### MJ Carlos Bermudez

Four Embarcadero Center, Lobby Level San Francisco, CA 94111 415.397.7173 | carlosbermudez.net

# I'M THERE

Home | Life | Renters | Condo Auto