



**Skaggs School of Pharmacy and Pharmaceutical Sciences
Welcome New Faculty**

By David Adler, Pharm.D.



Dr. Kelly Lee joined the faculty of the UCSD Skaggs School of Pharmacy and Pharmaceutical Sciences (SSPPS) in September 2007 as an Assistant Professor of Clinical Pharmacy. Dr. Lee's specialty area of pharmacy practice in which she is board certified is psychiatric pharmacy. Within the SSPPS Dr. Lee will co-chair the spring

quarter SPPS 212C Therapeutics course and provide lectures in the area of psychiatry, behavioral disorders and diseases of the central nervous system. Areas of clinical practice and research are focused on a pharmacist-run Medication Therapy Management Service model and the ethnic differences in the treatment of major depressive disorders, and identifying genetic variations that may predict differential treatment response to antidepressants among Asian Americans. She currently volunteers at the UCSD Free Medical Clinics Project.

Dr. Lee completed her undergraduate degree in biology at UCLA and earned her Pharmacy Doctorate from the University of California, San Francisco. She then

completed a pharmacy practice residency at UCSF followed by a 2-year post doctoral Fellowship in Behavioral Health Sciences with Patrick R. Finley, Pharm.D., BCPP, at the UCSF School of Pharmacy. While there she also completed the Certification in Training in Clinical Research, through the UCSF School of Medicine.

On the state and national scene she is active with the American College of Clinical Pharmacy (ACCP) and the CNS Practice & Research Network, the College of Psychiatric and Neurologic Pharmacists, Academy of Managed Care Pharmacy (AMCP), American Association of Colleges of Pharmacy (AACP) and ASHP. She is a member of Kappa Psi Pharmaceutical Fraternity.

Prior to joining SSPPS, Dr. Lee held her first appointment at Loma Linda University School of Pharmacy and established a clinical practice at the Jerry L Pettis VA Medical Center in Loma Linda, California. At LLU she was responsible for pre-clinical course work in therapeutics and clinical APPE course work in behavioral disorders.

When not at the campus, Kelly enjoys time with her husband, Doug Lee, DDS, traveling and sampling new restaurants. She enjoys the theater and opera, and competitive sports. Her favorite entertainer is Andrea Bocelli. Kelly is originally from Orange County. Welcome Kelly!

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William L. Marcus Distinguished Attorney in Pharmacy Law, Professor and Author

By David Adler, Pharm.D.

In his nearly 60 years William L. Marcus, JD, spent the initial part of his career in the California State Department of Justice, nineteen years as Deputy Attorney General and counsel for the California State Board of Pharmacy. Retiring early due to his struggle with diabetes, the last five years of his career Bill dedicated to the art of teaching in the Skaggs School of Pharmacy and Pharmaceutical Sciences, which his family cited as his great pride. Colleagues, faculty and students recognized Dr. Marcus for his compassion and opinions in law and ethics, particularly those related to health care, the pharmacist's responsibility in drug therapy management and counseling, and the relief and suffering from pain.

Following his undergraduate studies in Speech Arts with an emphasis in theatre at American University in Washington DC, Bill attended the University of San Francisco School of Law graduating in 1975 with a *Juris Doctor (J.D.) magna cum laude*, and receiving the Judge Harold J. Haley Award for academic excellence and outstanding contributions to the University.

His career service began in the State of California as a deputy attorney general in the Licensing Section of the California Department of Justice where he represented professional and licensing boards and bureaus in the Department of Consumer Affairs. From 1982-2001, he was the Liaison Counsel from the Attorney General's Office to the Board of Pharmacy. During his tenure he provided significant counsel for the expansion of the scope of California pharmacy practice to its modern day application and led the revision and reorganization and rewriting of pharmacy law to its present day form.

Both the legal profession and the regulatory pharmacy boards sought Dr. Marcus' leadership. He served as President of the National Association of State

Controlled Substance Authorities, as President of the Council on Licensure, Enforcement and Regulation, and as a member of the Executive Committee of The Council of State Governments.

Bill's personal interests included the theater and music. His guitar teacher in the 60's was Jerry Garcia of the Grateful Dead and some have commented that Bill's classroom was his stage. His professional passion included his deep held conviction that pain management and relief, especially for the terminally ill patient, must be adequately addressed. He worked diligently to improve state regulatory policies and advocated medically appropriate prescribing of opioid analgesics. He assessed state medical board guidelines and state laws and regulations related to pharmacy and nursing practice and was a frequent invitee to speak on these issues throughout the country. He worked with the University of Wisconsin Alliance of State Pain Initiatives and served on the Advisory Committee of the University's Pain & Policy Studies Group supported by the Robert Wood Johnson Foundation. A mark of his commitment was his personal email address, billnopain@aol.com.

Bill served the UCSD Skaggs School of Pharmacy and Pharmaceutical Sciences from its inception, teaching the first year Pharmacy Law and Ethics course and providing a premier review course for the fourth year classes as they prepared for licensure examinations. He assured SSPPS students completing their first year a comprehensive understanding of pharmacy law to prepare them for their internship experiences. Though his time with us was short, his contributions to the innovative curriculum in the Law and Ethics course were notable. With sentinel health literature he asked students to read and develop ideas around the human condition, and to express themselves in writing and small group discussions. Students were introduced to the balance of and respect for law, ethics and professional conduct. His living and struggle with

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diabetes served as a platform for many discussions and teaching moments. His most recent publication, *“Pharmacy Law for California Pharmacists”* in its 5th edition, and on which he was working at the time of his death is co-authored with Marsha N. Cohen, JD and is the principal text for California pharmacy schools and pharmacists across the country seeking to practice in California.

He received numerous awards for his contributions, notably, the Philip Hartman Award from the Professional Diversion Information Network, contributions to Humane Drug Policy from the National Associate Controlled Substances Authorities, Honorary Membership as the first non-physician member of the American Academy of Pain Management, and Award of Excellence from the Southern California Cancer Pain Initiative. He received recognition from students with the UCSD SSPPS Faculty Excellence Award.

As a result of faculty, colleagues, students, family and friends expressing interest in making a tangible contribution in Bill’s memory, Dean Taylor has established *“The William L. Marcus Scholarship Fund Honoring a Distinguished Attorney in Pharmacy Law, Professor and Author.”* An initial principal amount of one-half the endowed donation goal has been reached. Additional contributions will assist in reaching the goal of a permanent endowed scholarship. Information regarding contributions to the scholarship can be obtained by contacting Williams Ettouati at wettouati@ucsd.edu and/or contributions can be made directly to the following address:

**UCSD Health Sciences Development
c/o The William L. Marcus Scholarship Fund
9500 Gilman Dr. MC 0853
La Jolla, CA 92093-0853**

Scholarships will be awarded to students who excel in the first year curriculum, particularly the course in Law and Ethics, and who may have an interest in pursuing a career in some facet of pharmacy law and ethics. In this way his legacy will live-on.

Celebrating a New Life

By Nasim Ghafouri, P-3

The students of Class of 2009 have a new member sitting among them! Our dear classmate, Nicole Reynolds, is pregnant with a beautiful baby boy! To share our excitement with the mom-to-be, our class held a baby shower celebration at school on February 6th, just a few weeks before baby’s scheduled arrival in mid-March.

It was a potluck-style feast, complete with a flavorful baked salmon, chicken and rice, scrumptious salads, and an array of desserts and baked goods, including a luscious ice cream cake and miniature (dare I say, “baby-sized”) cupcakes.

During the shower, classmates signed and decorated onesies, used string to guess mommy’s tummy size, and suggested colorful and fun names for baby. In weeks prior to the shower, baby excitement had also encouraged many of the third-year students to submit pictures of their own baby years. These pictures were compiled into a slideshow, and a thrilling, suspenseful guessing game ensued on baby shower day. Despite uncontrollable laughter and sometimes utter disbelief, students tried to identify the cheeky, round-faced, adorable babies from each picture as one of their own classmates.



Towards the end of the shower, Nicole opened her presents and received some breathtaking gifts, such as onesies with “Handsome” or “Little crawlers” written on them, and bibs that read, “Early morning wakeup call” and “It’s all about me”. Our class can’t wait until baby arrives, and we look forward to the day Nicole brings him to visit his mommy’s pharmacy school!

SSPPS Classroom 1120 enabled for stereo 3D projections of molecular structures

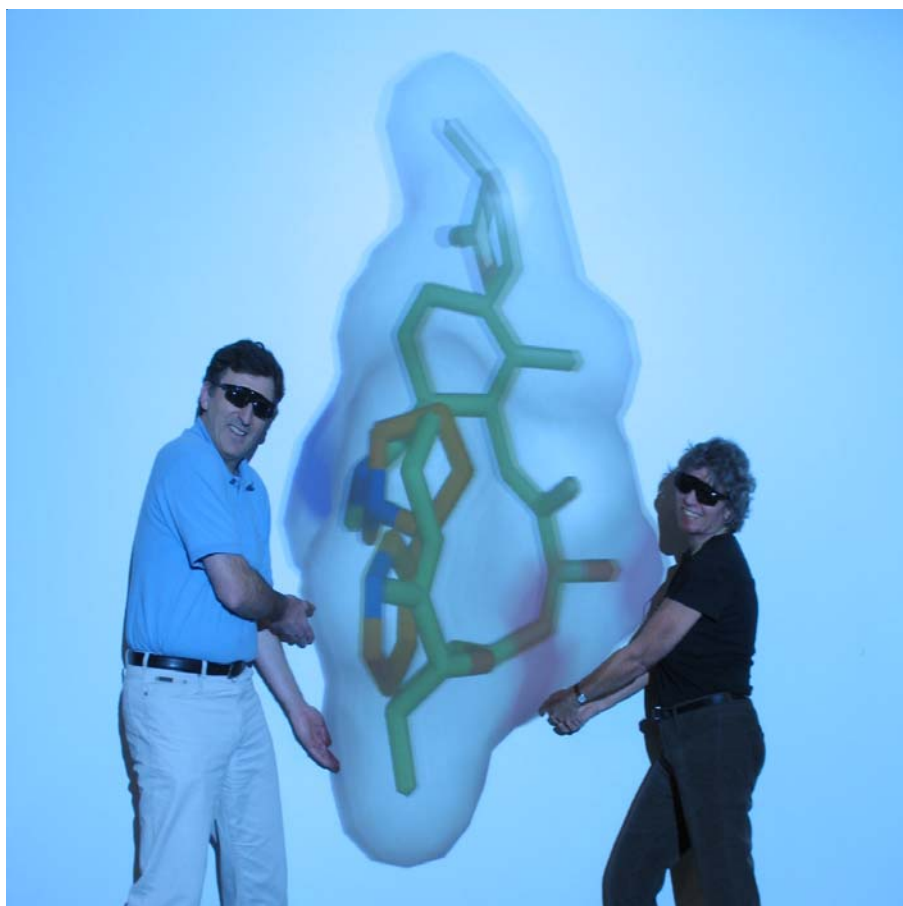
By Zoran Radic, Ph.D.

Dean Palmer Taylor's laboratory in collaboration with SSPPS professor and Protein Data Bank (PDB) Associate Director Philip Bourne have recently equipped the small amphitheater classroom 1120 in the Pharmaceutical Sciences Building with projection equipment capable of three-dimensional (3D) visualization of molecular structures and other 3D produced visual content. Dr. Zoran Radic Associate Project Scientist at SSPPS designed the system.

Stereo 3D visualization should become a valuable educational and research tool that greatly facilitates the visual aspect of understanding of complex macromolecular structures including proteins, nucleic acids and large macromolecular complexes. In recent years advances in structural biology and chemistry have led to the determination of a large number of 3D structures of macromolecular drug targets and their complexes with drug molecules. These resolved structures are deposited in the PDB and freely available to students and researchers. Structural and chemical understanding of molecular sites of drug interactions has become an increasingly important part of rapidly evolving methods for the design of novel lead pharmaceutical compounds.

Visualization in 3D allows the observer to perceive objects

projected onto the 2D screen surface as 3D life-like models. The intent is to create a more natural viewing experience through which new scientific insights can be made that would not otherwise be possible. The effect is based on rapid alternating projection of two slightly offset views of the same image. Stereo glasses are used to separate two different images so that each eye can continuously see only one of the views, resulting in stunning perception of 3D depth. Until recently this technology was reserved for special visualization



Dr. Michal Harel, visiting scientist from the Weizmann Institute of Science, Rehovot, Israel (right) and Dr. Zoran Radic of the SSPPS investigate stereo 3D rendered molecule of dinoflagellate alkaloid toxin SPX1 isolated from New Zealand oysters. The crystal structure of the toxin is courtesy of Drs. Yves Bourne and Pascale Marchot, University of Marseilles, France.

Photo by W. Yu

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laboratories and industrial R&D departments. The exponential advances in computer microprocessor power integrated in today's personal computers and advanced digital light projection technologies are making it affordable for the classroom and larger group seminars as well.

The installed stereo 3D system includes a Windows PC workstation equipped with high-end professional stereo ready video card, stereo capable DLP computer projector, IR stereo emitter and liquid crystal based stereo "shutter" glasses. SSPPS covered costs of an Optoma TX774 4000 lumen DLP projector and a larger number of stereo glasses sufficient for the capacity of classroom 1120, while PDB contributed a 3D-1002 "3DFlightsim" stereo emitters and Dell Precision 670 workstation equipped with nVidia Quadro FX 4500, high end professional graphics card.

A PC workstation is loaded with molecular visualization and analysis software intended for comprehensive display, rendering and analysis of complex macromolecules. It includes widely known and used molecular visualization programs: Pymol, UCSF Chimera, VMD, Accelrys DS Visualizer, Coot, and Swiss PDB viewer. These programs import Cartesian coordinates of molecular structures in PDB format and by application of extensive rendering produce visually appealing structural presentations.

Some of the installed programs also allow for the direct embedding of active, rendered structures into Microsoft PowerPoint slides resulting in presentations of visually rich and appealing structural content.

The equipment and the classroom are intended for educational use by SSPPS faculty as well as for structure-based research seminar presentations.

The first stereo 3D seminars are planned in this classroom for March of this year.

Operation Diabetes Takes Control

**By Spondee (Ancong) Shen, P- 1,
Rebecca Romasco, P- 1 &
Candis M. Morello, Pharm.D., CDE, FCSHP**

On December 8th 2007, after a keynote lecture on latent autoimmune diabetes for adults (LADA) by Dr. Moritsugu, attendees of the 13th annual *Taking Control of Your Diabetes* (TCOYD) conference and health fair eagerly navigated their way through various exhibitors with the goal of educating themselves on their disease—namely diabetes. Exhibits included new diabetes products (such as the heart-healthy super chocolates, cookies and health drinks) medications, devices, and there was even an ever-pedaling bicyclists in a stationary race for diabetes. Ultimately approximately 50 people with diabetes and their family members reached our counseling area for the chance to have a one-on-one session with community pharmacists and our very own UCSD student pharmacists.

TCOYD was the inaugural event for 2007-2008 Skaggs' American Pharmacist Association Operations Diabetes committee, chaired by Spondee (Ancong) Shen, who worked with faculty advisor Dr. Candis Morello to organize the *Ask a Pharmacist* event. People with diabetes and their family members quickly lined up for the chance to sit down with licensed pharmacists to inquire about a variety of diabetes related topics. These ranged from medication adherence to timing of medications for maximal results to drug interactions and interpreting laboratory blood work results. The whole experience was as beneficial to the student pharmacists as it was to the patients mainly because the Skaggs got to see the trained and experienced pharmacists effectively use their impressive counseling skills.

The student pharmacists also provided educational diabetes posters at the conference. These resources included information about different treatment options (oral medications versus insulin therapy, physical activity, and foot exams), diet and nutrition, and the pathophysiology of diabetes. After completing their counseling session, patients viewed the posters and asked student pharmacists to clarify and elaborate on the content of the posters.

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A common theme we heard was that many patients felt rushed during their physician appointments and that they often left the doctors' office without having all of their questions answered. Thus, the TCOYD attendees were pleasantly surprised and grateful for the welcoming atmosphere and the opportunity to sit down and discuss their concerns one-on-one with healthcare professions in a relaxed setting.

Students were also impressed by discovering how knowledgeable the diabetes patients were about their disease. The majority of the TCOYD attendees we counseled carried medication lists and filled-out log books, indicating that they actively monitored their blood glucose values. These were very motivated patients and deserve praise for their proactive approach towards managing their own health.



At the end of the conference, we student pharmacists packed up our materials and headed home with a smile of satisfaction on our faces. We knew that we had just spent the day, participating in an event that had truly impacted the quality of life of patients with diabetes. We had provided them with the knowledge and tools to take their rightful role in battling their disease. Furthermore, we knew that this profession we chose for ourselves, would significantly impact the quality of life of many more patients to come.



Operation Diabetes (OD) officially starts off its season with an appearance at the "Taking Control of Your Diabetes" conference on December 8th, 2007 at the San Diego Convention Center where UCSD student pharmacists pair up with community pharmacists to counsel patients on drug indications, therapy compliance, and lifestyle/nutrition modification. (Caption from left to right, top row: (P2) Laura Lafranchise, (P1) Sarah Bajorek, (P1) Cristy Garcia, (P1) Cathy Chang, (P2) Megan E. Chynoweth, (P1) Rebecca Romasco, (P1) Kam Soleymani, (P1) Sohil Rai, (P1) Kayvan Moussavi; bottom row: (P1) Kim Tsai, (P1) Courtney Shakowski, (OD Advisor) Dr. Candis Morello, (OD Chair) Sponde Ancong Shen)

Dean's Advisory Board Meeting Skaggs School of Pharmacy and Pharmaceutical Sciences

January 15, 2008

By Williams S. Ettouati, Pharm.D.

Dean's Advisory Board Mission:

The Dean's Advisory Board (DAB) mission is to provide guidance and feedback to the Dean in regards to activities related to the Skaggs School of Pharmacy and Pharmaceutical Sciences. Board members are comprised of representatives from community pharmacies, executives from pharmacy chains, health care services, pharmaceutical, biotechnology industry and other pharmacists.

Dean's Advisory Board Members for 2007-2008 are:

- David Fong, Pharm.D, Senior Vice President, Pharmacy and Family Care, Safeway Food and Drug Stores, Inc.
 - John Bender, Pharm.D., Vice President of Clinical Research, Favril, Inc
 - William Comer, Ph.D., Chairman, Board of Directors, Torrey Pines Therapeutics
 - Michael R. Hanley, PhD, Vice President of Discovery Research, Amylin Pharmaceuticals, Inc.
 - Joe Panetta, President & CEO, Biocom
 - Thomas Breslin, Pharm.D. CFP, CEBS Fellow, Seven Summits Wealth Management
 - Duane Roth, President UCSD Connect
 - Ken Schell, Pharm.D., Clinical Operations Manager, Kaiser Permanente
 - Nigel Shankley, Ph.D., Senior Research Fellow, Johnson & Johnson PRD
 - Ray Townsend, Pharm.D., FCCP, FAPRS, SVP Pharmacoeconomics & Epidemiology Outcomes Research, Elan Pharmaceuticals
 - V. Wayne Kennedy, University of California, Senior Vice President, Emeritus
- Special Guest:
- David Brenner, MD, Vice Chancellor for Health Sciences, Dean, UCSD School of Medicine
 - Binh Tran, Pharm.D.

The DAB meet about twice a year, this year the board met on January 15, 2008 for a couple of hours.

Meeting objectives:

The first objective was for Dr. Palmer Taylor to present an update on the accomplishments made in 2007 at the Skaggs School of Pharmacy and Pharmaceutical Sciences (SSPPS).

Second objective was to address key challenges that the school is facing today and in the coming years.

Finally, the third objective was to have a brainstorming session with our board members and generate ideas on how to tackle potential and current issues as well as enlist their help in supporting the school of pharmacy throughout the community.

Here is a brief summary of the meeting and outcomes:

Dean Taylor presented and explained the history and establishment of SSPPS. The premises for development of the School of Pharmacy at UCSD had several objectives; meet the needs of a developing biotechnology and pharmaceutical community. A unique feature was to have a shared curriculum with the School of Medicine and create a small school that is research and specialty practice oriented with diversity in its curriculum. The accomplishments of the school on the educational front are:

SSPPS Academic Results:

Residency Percentages UCSD ~50%, National Average 10- 12%

- NAPLEX Exam 1 (150 Points), UCSD mean 125.7, California 113.4, US 107.0
- NAPLEX Exam 2 (150 Points), UCSD mean 121.1, California 101.4, US 93.2

As one can see from these scores The Skaggs School of Pharmacy has been very successful and is off to a great start in potentially establishing itself as one of the top pharmacy schools in the nation.

Brainstorming Session: Outcomes and Meeting Follow-up:

The brainstorming session provided us with several things to explore and follow-up on:

The first suggestion was to establish what differentiates SSPPS as well as explain SSPPS sustainable competitive advantages from all the other schools of Pharmacy. After this is laid out in, then we need to develop a plan to effectively communicate and promote SSPPS. The communication plan needs to be targeted for each of the community representatives including, pharmacy retail chains, pharma and biotech companies and health care providers.

The second suggestion was to show how our pharmacy students are contributing to the San Diego community and have a public health impact on the community. In addition SSPPS should think about how students can be exposed more to the biotech and pharmaceutical industry. Maybe the school could sponsor an event providing this opportunity to the students as well as the faculty.

The third suggestion was that SSPPS might consider having a presence at Bio in June, in the California booth. Since Bio is in San Diego this year it would be a great opportunity to show SSPPS's unique attributes. There will be several thousands of pharmaceutical, biotech and health professionals from all over the world.

Other suggestions are that faculty needs to have more face-to-face interaction with pharmaceutical and biotech companies in San Diego to promote the different research programs that SSPPS has to offer.

In follow-up SSPPS Faculty will discuss these suggestions and Williams will set up follow-up meetings with each board member to have a more detailed discussion.

If you would like any additional information please feel free to contact me at wettouati@ucsd.edu

Class of 2007 Has a 100% Pass Rate on the NAPLEX

By Tony Manoguerra, Pharm.D.

All members of the Class of 2007 successfully passed the North American Pharmacist Licensure Examination (NAPLEX). In addition, the class members scored well above both the state of California and National averages on the exam. In the May through August exam period, 18 graduates took the exam and scored an average of 123.72. The state average was 119.74 and the national average was 113.33. In the September through December exam period, 5 graduates took the exam and scored an average of 113.60. The state average was 104.25 and the national average was 94.18.

Both the Class of 2006 and the Class of 2007 have had 100% pass rates on the NAPLEX and both classes scored significantly above both the state and national averages. The success of these graduates is a reflection of the high quality of the students we admit to the School, their dedication and hard work as student pharmacists and to the outstanding efforts of our faculty, preceptors and staff.

BioMedical Library



Biomedical Library (BML)

9500 Gilman Drive 0699
La Jolla, California
92093-0699

Sue McGuinness, Ph.D.
Pharmacy Librarian

smcguinness@ucsd.edu
(858) 822-4656

Email Reference Service:

biomed@ucsd.edu

Visit the library website for hours:

<http://scilib.ucsd.edu/bml/>

Doc For A Day

By Neil Patel, P-3

For the second year, pharmacy students from the Skaggs School of Pharmacy were invited to participate in the annual Doc for a Day program hosted by the UCSD medical school. The event provides a forum for middle school students from underserved communities all over San Diego County to learn about college, medical, and pharmacy school. The visiting middle school students rotated through three presentations by the pharmacy students that introduced some of the basic practices and responsibilities of a pharmacist.

For the first presentation, middle school students were informed of the importance of compounding drugs into various dosage forms and participated in a demonstration that allowed students to compound their own glucose capsules and liquid mixtures. In the second presentation, pharmacy students discussed how the primary role of a pharmacist, especially in the retail setting, is to educate customers/patients about the type of medications they are interested in using. The pharmacy students disclosed the various tactics that pharmacists utilize in order to evaluate whether certain medications are appropriate for a patient. In addition,



the pharmacy students also performed some hands on experiments that demonstrated the actual physical action of some OTC medications.

For the last presentation, pharmacy students demonstrated the importance of counseling patients on

proper medication usage. Students were able to take the role of a pharmacist and counsel each other by using a commonly used OTC product. Examples of medications that appeared identical to other household products were also displayed in order to present the dangers of inadequate counseling. In addition, this year 3rd year students from the pharmacy school were invited to



participate in an open panel with the medical students, answering questions from students and discussing their own individual experiences that led them to choosing a profession in pharmacy.

Overall, the event was a beneficial experience for both the visiting students and the pharmacy students. The middle school students were granted a great insight of what pharmacists do, the steps to becoming a pharmacist, and the various career opportunities in the field of pharmacy. For the pharmacy students, the event strongly reinforced the reasons for choosing a profession in the field of pharmacy.

Many thanks to the following students who participated and the faculty that aided in the process:

Lillie Allison, Neil Patel, Tim Bassell, Karla Choy, Nicole Reynolds, Jennifer Lai, Andrew Chang, Xiaoying Quan, Dixit Bhakta, Justin Hoffman, Andy Urquhart, Jerry Wu, Vy Tran, Celeste Mangune, Kiana Keyvanjah, Daisy Chang, Leeda Barreau, Dr. Shirley Tsunoda, and Dr. Joseph Ma.