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Congratulations to Mills Peninsula Health Services Radiologic Technology Program capturing 1st and 3rd place in the scientific exhibit judging at this years Annual Conference.
THE TECHNIGRAM

JOURNAL OF THE CALIFORNIA SOCIETY OF RADIOLOGIC TECHNOLOGISTS

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Letter from the Editor

December 2012

Not a bad year for the kind of year that it was. CSRT continued to provide educational opportunities and legislative leadership despite tough economic times. California radiography departments continued to provide service to patients, our radiologic technology programs continued to train technologists for the workforce, the CARE bill is all but law, and the State of California has recognized that we cannot keep doing business as if it were still 1983. There is evolution in the air, and this issue of the Technigram heralds some of its own evolution. On these pages you will find a virtual tour of the proceedings from our annual conference at Good Sam in LA, a preliminary report of how good the AC really was, and of course the usual national, presidential and legislative report.

A new feature of the Technigram includes publication from students and technologists alike. This is an idea that the Board of Directors thought meritorious and this issue will begin that new trend. Students and technologists, if you have a piece that you would like to publish (read: resume builder), please send it to CSRT or to the editor. Articles deemed of interest to our society members, and meeting standards for good writing (use of English, spelling, grammar and format) will be published. For specifics, please contact me.

Of course, the other side of written communication is Letters TO the Editor. Have something you want to say, we want to hear it. You must include a real name and valid e-mail address in your initial communication, but if published, real names and addresses can be withheld by request.

And with that, I give you leave to explore this issue of the Technigram. My personal thanks to the CSRT Board and committee members for their continued support of this publication. And a big shout out to Webmaster Cody Doan without whose technical prowess no one would be seeing this page or the CSRT website at all.

Best,
--Rich Lehrer
Editor in Chief - CSRT Technigram
DECEMBER 2012

“When one sits in the audience of a CSRT meeting and feels the vibrations of comradeship, one feels secure. When one stands up in this group and is able to express one’s feelings and still feel the sweet vibrations from this organization, one’s heart overflows with joy. When one is able to preside over this organization, speak for its membership, and feel the enclosing vibrations, one is overjoyed to the highest extent. Such joy leads one to question the roots of CSRT, a Society attuned to the needs of its membership and a pacesetter for technology, worldwide; a Society with the capacity to mold precious knowledge and experience of the past into an unbreakable foundation for the future with the vitality to erase worry about either this foundation or its sustaining roots. At this point, fellow technologists, one has nothing but love for one’s organization.”

Davidson C.L. Jackson, CRT
President, CSRT 1976-77
“CSRT-The First 40 Years”

As I start a new year with the Board of Directors, newly elected this past October, I found this piece particularly inspiring. A successful and well received Annual Conference behind us, we continue on in the coming year to add to our membership base, bring more benefits to our members and evolve with the changes affecting our profession, in the hopes of living up to the words of one of our former Presidents, Davidson C. L. Jackson.

I am fortunate to have worked with a wonderful group of dedicated professionals over the past year and look to the new board of directors and committee chairs including new directors Helena Coello, Patrick Lee and Pamela Jones (RTEC President) to be successful in all of our endeavors.

As President of the CSRT, I would ask for one goal from all of our membership in the coming year. I would ask that we all take every opportunity to promote your local affiliate at your workplace, clinical site or classroom. A simple reminder to your coworker, student or classmate in the classroom, at the breakroom table or while waiting for the next case to come across the printer can do so much in spreading the word about who and what we are to California technologists, the profession and our patients.

Thank you again for your continued support and hope to meet you at future events in 2013, by phone or through email communication.

A happy, healthy and safe holiday season to everyone.

Lorenza Clausen, CRT, R.T.(R)(CT)(MR), ARRT
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The Latest and The Greatest 2012

The CSRT held its fifth annual event in Sacramento showcasing the latest and greatest in medical imaging. As the name suggests, Chairpersons Rich Lehrer and Lorenza Clausen sought out current, relevant and new technologies for its program lineup.

There were presentations given by technologists on surgery, important lab values and the importance of patient consent. The physician faculty were experts in the field of pain management, PET CT and CBCT in the use of dentistry.

The more than 50 attendees enjoyed a diverse program in addition to mingling with a diverse technologist and student population. The facility was also once again sponsored by Sutter General Hospital and provided a great location for the seminar.

This year the CSRT also chose to hold a venipuncture class at the same site and had several technologists certified for venipuncture as a result.

Plans are underway for L&G 6 at Sacramento’s Sutter General Hospital once again. Save the date for September 7th, 2013. Check the website for program details and registration in spring of 2013.
The CSRT Welcomes Its Newest Board Members

David Poon, RT(R), ARRT, CRT
CSRT President Elect

Dear Colleagues:

I am honored and humbled by this special opportunity to serve you and the profession and, thereby, patients from throughout California who benefit from the care that we as Radiologic Technologists provide. As the Chair of the Membership Committee and then Director at Large over the past 2 years, I am very familiar with the importance of the CSRT longstanding commitment to lifelong learning through our Annual Conference and numerous other programs. We are fortunate that we have over 20,000 practicing Radiologic Technologists in California. We owe it to the public and to our profession to be leaders in the medical imaging community. We live in turbulent and uncertain times that very likely will produce the most rapid change in the delivery of health care that the nation has seen in decades, and I look forward to tackling those challenges head on in my term as president elect.

To serve has only strengthened my respect and admiration for the amazing CSRT staff and the hundreds of CSRT members who willingly volunteer their time, energy, talents and resources to support the CSRT and its missions. I challenge you to find time and invest in your profession. Given that energy and talent, I believe that our future remains promising and bright. I pledge my commitment to our members and to the CSRT programs that enable us to advance the quality of care that our patients richly deserve. Mentorship deserves our attention, and will be an area of my focus over the year. A healthy future requires up-front investment.
New Board Members

Helena Coello, M.Ed., R.T.(R), ARRT, CRT

My name is Helena Coello and I am one of the Directors-At-Large on the CSRT Board. I wish to serve on the Board of Directors of the CSRT as a Director at large because I would like to put my experience and energy to work for my fellow technologists in California. I truly enjoy promoting my profession and seeing technologists succeed in their professional endeavours.

I am a graduate of the Miami Dade College Radiography Program class of 1999. I also earned a Bachelor’s degree in Health Services Administration and Master’s Degree in Health Occupation Education at Florida International University. I have been weekend supervisor, clinical educator, clinical instructor, Radiology adjunct faculty and graduate level faculty for both online and traditional classroom setting. Currently I am the Radiology Manager for Kern Medical Center in Bakersfield, California.

I am a masters prepared lecturer, published author with over 14 years’ experience in the medical imaging profession and over 10 years of leadership experience. My interests include research, technology, travelling, tent camping and reading. I am a single mother of 3 beautiful girls, ages 17, 19 & 27. I have two daughters in college; one in Florida International University (she is a paramedic pursuing a bachelor’s degree in psychology) and the other at Sacramento State College (pursuing a nursing degree). My youngest daughter has plans to pursue a career in veterinary medicine.

Patrick Lee, B.S., R.T.(R), CRT(F)
X-Ray Program Director
Kaplan College, Vista, CA

Mr. Lee began his career as a Hospital Corpsman in the U.S. Navy, and attended the Navy’s X-Ray Technology program through George Washington University in Washington, DC. He completed his clinical training at the Naval Regional Medical Center in Long Beach, California, and became a Registered Technologist with the ARRT in 1981; that same year he was licensed by the State of California as a CRT.

After leaving the Navy, Mr. Lee lived in various states throughout the country, including Hawaii (where he still holds an active state license), until relocating to his home state of California in 2000. He began teaching in the X-Ray program at Kaplan College Vista in 2006, eventually being appointed to the post of Program Director in August of 2010; he continues to serve in that capacity.

Mr. Lee is currently registered with the American Registry of Radiologic Technologists, is licensed by the State of California for Radiography and Fluoroscopy, and holds a Certified Radiographer license in the State of Hawaii. He has earned a Bachelor of Science degree and is currently enrolled in a Master of Science program in Higher Education through Kaplan University. He is a member of the American Society of Radiologic Technologists, and was recently elected as a Board Member Director-at-Large for the California Society of Radiologic Technologists.
HAPPENINGS ON THE NATIONAL FRONT

The final push for the CARE bills is in full swing. Only weeks remain in the 112th congressional session. SB 3338 and HR 2104 are still currently in their committees waiting for additional support. HR 2104 has 136 cosponsors and the Senate bill has 8, including 17 California congressmen and women. Support is needed from as many representatives and senators as possible to ensure the possibility of a vote. With the end of the session looming, no passage of the CARE bill would mean starting all over in 2013.

HR 3032 or MARCA currently has 41 cosponsors, including Filner(CA-51) and Richardson(CA-37) from California. The Medicare Access to Radiology CARE Act would authorize Medicare reimbursement for services provided by a Radiologist Assistant. More than 25 states recognize the RA, although not currently in California.

California became the fifth state to pass Breast Density legislation in September. SB 1538 (Simitian, D-Palo Alto) was signed by Governor Brown on its second attempt after being vetoed the first time last year. It will require facilities to notify women that are categorized as having dense breast tissue. Dense breast tissue has a higher possibility of concealing abnormalities on a mammogram and possibly an increased risk of breast cancer. Additional screening may also be recommended for those patients to include Ultrasound or MR. Connecticut was the first state, followed by Texas, Virginia and New York.

The Image Wisely campaign released its latest version targeting Nuclear Medicine. Aimed at educating physicians, technologists and radiologists, it is similar to other modality campaigns trying to keep dose down. Online educational materials are available to educate on using the lowest dose of radiopharmaceuticals possible. Since beginning two years ago, the ACR along with the ASRT and the AAPM, have sought out pledges by healthcare professionals who perform these examinations and procedures. Image Wisely will eventually take their campaign to the general public to educate the adult population. The similar campaign, Image Gently, targets the pediatric patient. For more information check out their website at http://www.imagewisely.org.
As chair of the CSRT by-laws committee, I want to thank everyone who participated during the voting at this year's Annual Conference. It was wonderful to see members' passion and devotion to the voting process and to CSRT. Your enthusiasm during the lively debate reminded me of our commitment as CSRT members to our profession and our organization. That energy is necessary in keeping CSRT a vital professional organization that advocates for radiologic technologists and our patients. In addition to voting, members can voice their opinions to help make CSRT a stronger organization by volunteering for one of the many committees, providing ideas to improve our website, and recommending topics for the Technigram as well as conferences. I especially want to encourage CSRT's newer members to become involved.

I also want to thank those veteran CSRT leaders who stepped up and facilitated the actual voting process. Due to being fairly new at participating in organizations, I was not familiar with the official process for voting on amendments to by-laws. I have since acquainted myself with parliamentary procedures and Robert's Rules of Order and will be better equipped to coordinate the voting of amendments at future Annual Conferences. Every Annual Conference is an educational opportunity for me and this year was no exception.

Lastly, I am pleased with the addition of the new membership category - Graduate Bridge. The category which has a reduced fee was created for new technologists who may find it difficult to find employment during their first year in the profession. The revised membership application form is now on our website. I hope that new technologists take this opportunity to become involved in the CSRT even if they were not as students.
With the election being completed and the country more divided than in recent memory, a growing deficit/fiscal cliff looming, it is doubtful that legislation beyond these issues will take center stage in 2013. Proposed tax hikes, rate increases and loophole alterations will become the dominate issues for 2013. ALL RT’s should continue to contact their state and federal officials to notify and support the measures that affect our profession and patients.

Number of states requiring licensure or certification for practice of:
1. Radiography - 39
2. Radiation Therapy - 35
3. Limited X-ray Machine Operators - 32
4. Nuclear Medicine - 31
5. Fusion Imaging - 12
6. Radiologist Assistant - 29
7. Magnetic Resonance - 3
8. Mammography – 5
9. Sonography – 2
10. Computed Tomography – 3
11. Cardio Vascular – 6
12. Fluoroscopy Permit - 1
13. No standards – 7

FEDERAL:
CARE Bill – 136 Co-sponsors – was introduced in both houses of US Congress - June 2012.
MARCA – Amend Social Security Act to recognize RA’s and authorizes reimbursement through CMS for states legally establishing RA practice guidelines.
2013 Proposed CMS Fee Schedule cuts Radiology Payments as follows:
1. Radiation Therapy – 19%
2. Radiologists – 4%
3. Radiation Oncologists – 15%
4. Interventional/Nuclear Medicine – 3%
5. Diagnostic Testing Facility – 8%

CALIFORNIA: RPA/RA Legislation – AB - 352 Eng – suspended 2/2012. This measure is currently being reviewed for possible re-introduction.
We urge ALL RT’s to contact us and voice your concerns, comments and questions for state/federal legislative action for 2013.
Social Media in the Clinical Environment
By Diane R. Garcia

Does your radiology program or radiology department have problem with social media?

Almost everywhere I go, I see people staring at their phones. Is it a crazy phenomenon or do you find it to be a disturbing truth of today's society? This social media craze has entered the classroom as well as the clinical aspect of most (if not all) radiologic technology programs and departments.

I have tried to move forward with the craze but when lecturing and students have their computers or iPads turned on, it is increasingly noticeable that Facebook, Twitter or any number of other social media windows are opened in the background. This is very distracting for any instructor and in reality, very distracting for the student.

There is a bigger problem with social media that I have anticipated. It is found in the clinical environment and this issue has to do with confidentiality. All cell phones and iPads have social media, camera and texting capabilities. These capabilities pose huge HIPAA (Health Insurance Portability and Accountability Act) problems.

According to Green & Associates in an article on the 24/7 Press Release website, “Over the years, we have heard numerous stories of employees who have gotten into hot water at work because of what they’ve said on social networking sites. The need to vent about a bad day is natural, but when you do it online, you may find yourself venting about your work problems a lot less for want of a job. But when you’re in the medical profession, the stakes for bad social networking habits are a lot higher than just losing a job: Those who disclose patient information online can find themselves in violation of patient privacy laws like the Health Insurance Portability and Accountability Act, known as HIPAA. Doing this can result in not only getting disciplined or fired, but being subject to fines of up to $250,000 and even a prison sentence. Another potential negative consequence is an investigation and discipline by the professional's state (or national) board.”

The above statement also affects students. The problem escalates when students are just entering the clinical environment, perhaps with little to no experience in this type of setting and actually don’t understand what confidentiality really means or how easily it can be violated.

The Green & Associates article went on to list some examples of confidential patient information that was listed online. Though these are not student examples, you can easily see how this can happen with those that are in the educational process:

- A nurse who posted a patient’s picture and chart on his Facebook page because he thought it was "funny" and since it was "only Facebook," there was no real harm in it
- A doctor who treated a patient over Twitter
- Emergency room personnel who posted pictures on the Internet of a man being treated for fatal knife wounds
- A doctor who asked a patient on a date after seeing her profile on a dating website
- A Rhode Island doctor was fired from the hospital and reprimanded by the Medical Board
after she posted on her Facebook page about a long day at work. She never referred to the patient’s name but gave out enough details about the injuries to allow others to guess who it was.

According to Dave Ekrem’s article, *7 Tips to Avoid HIPAA Violations in Social Media*, these are the tips for all medical personnel at all levels:

1. **Don’t talk about patients, even in general terms.** It’s so difficult to anonymize patients. For example, it’s pretty obvious no thinking person would post this: “Joe Smith was in the ER last night with alcohol-induced liver disease.”
   But this could also identify your patient: “We had a fifty-year-old male in the ER last night with alcohol-induced liver disease.” (Somebody’s going to say “Really? In San Francisco? Hey—where was Joe last night? He’s fifty. Oh—I feel sorry for the kids.”)
   And so could this: “Had a patient in the ER last night with alcohol-induced liver disease.” It takes only a couple of clues for the sleuths to piece something together. As little as time frame, California geography, coupled with condition, could be enough.

2. **Do talk about conditions, treatments, research.** You can write about conditions, treatment options, research, or other topics in general terms.
   Avoid: “I radiographed a patient last Tuesday with xyz condition . . .”
   Okay: “Children with xyz condition typically require these radiographs . . .”

3. **Don’t be anonymous.** This has always been a warning sign in social media—even before Facebook and Twitter when we were using listserves and bulletin boards. Be aware that anonymity breeds bad behavior. Being anonymous encourages one to say things one shouldn’t.

4. **If you wouldn’t say it in the elevator, don’t put it online.** This is a famous test, probably repeated by compliance departments and trainers at hospitals all over the US. If you wouldn’t say it in the elevator, don’t put it online. You can try speaking your post out loud before hitting the enter key. Take particular care when replying to people in real-time venues like Twitter. You don’t have to respond right away and if you have any doubt at all, ask a friend or colleague for their reaction before you post.

5. **Check the tone of your social media presence.** Watch the tone of your posts/tweets: if you’re using social media to vent about work or the classroom, you should pause and evaluate—too much complaining could be an early warning sign of trouble. Unfortunately, humor can be another warning sign. Any time you write something you think is funny, ask a friend to have a look before you post.

6. **Don’t mix your personal and professional lives.** Use separate accounts for your personal and professional lives. Don’t friend patients on Facebook, check your privacy settings monthly (they change from time to time) and assume that anything you put online could become public. If you want to have a professional presence on Facebook, create a page apart from your personal account.
7. **Disregard your English teachers' advice.** Writing teachers in colleges will advise you to “show, don’t tell,” and “make it concrete and active.” They would prefer to have a story about a real person–Dave, with alcohol-induced liver disease–rather than general advice about the condition or treatment options or your response to recent research. They’d love to know Dave’s age, ethnic background, marital status, what brand of shirt he was wearing, that his loafers were scuffed. If you’ve ever had a composition course, you may have to unlearn a little doctrine.

Green & Associates address “the growing problem of HIPAA violations by radiologic technology students and radiology professionals in general, Novarus Healthcare, LLC -- a North Carolina-based company that develops mobile solutions -- is creating technology that will monitor social media sites to find HIPPA violations and evaluate the severity of the privacy breeches, which will help a medical institution take appropriate action.”

In a perfect world, radiologic technology programs would offer future technologists tips on how to conduct themselves professionally online. By the same token, students would then listen and have a better comprehension of patient confidentiality.

Ultimately, however, it’s up to all medical professionals to think before they hit the send button. According to Dave Ekrem, who is the social media manager at MassGeneral Hospital for Children, some ways to avoid HIPAA violations online include not talking about patients, even in general terms; not posting things anonymously, which can encourage bad behavior; and above all do not mix your personal and professional personas in the same online profile.

Hospitals and colleges must understand that many employees and students of all medical professions are engaged in Facebook and other social media platforms in their personal lives. A well defined social media policy is essential to give everyone clear guidance–even if the employer/college does not have its own social media platforms. Once you develop social media policies, make sure everyone is thoroughly trained.

References:
Green & Associates (June 16, 2012). *Social Media HIPAA Violations on the Rise*  

Ekrem, David (June 7, 2011). *7 Tips to Avoid HIPAA Violations in Social Media,*  
I attended this year’s CSRT conference in Los Angeles at the Good Samaritan Hospital. It was wonderful to meet the people that I had only had contact through email or our online Student Committee meetings. It was great to listen to the experience of those that have been in the profession for a long time and to feel the enthusiasm from other students like myself. I enjoyed my small part in pulling the conference together and see it happen. As most of you know, that in a volunteer organization like ours, when you suggest something – it becomes your project! I have some design experience in my background and so I took on the job of designing the registration pamphlet and coming up with this year’s logo. I was so pleased to see the design carried over into the wonderful booklets we were given by Alison Corley and the volunteers at the registration table. The booklets looked amazing and were very professional, as well as containing very useful information for the day. The crew who put together the speakers should be complimented. The speakers were interesting, informative and dynamic. Rolly Reyes’ presentation about the American Recovery & Reinvestment Act was very enlightening. Dennis Bowman is always such a lively speaker; I wondered how he could be followed! But, Dr. Frank Goerner, colleague of Dr. Bushshong, did a great job with his information of lowering patient dose during fluoroscopy and his dry wit. After lunch, I looked forward to Jennifer Yates lecture on problem solving. I took her advice and sat with the Radiologists and listened as they dictated. In just an hour or so I learned more about how to critique my own images. Lisa Russell gave an informative talk regarding the legal issues about radiography in California, and the student bowl was just plain fun!

I am honored to serve as the Student Committee Chair and would like to offer my congratulations to all those students who won awards, scholarships or student bowl competition. I would also like to thank the RTEC and the CSRT for the honor of being the recipient of the “Golden Apple” award this year. I am inspired by the tireless effort of all of the board members and look forward to my future participation with this fun, energetic group of people!
Preliminary Attendance and Financial Report

2012 CSRT Annual Conference

The 2012 CSRT Annual Conference was held at Good Samaritan Hospital in Los Angeles on Nov. 10th, 2012 had a lower attendance than in the past. Normally, the Annual Conference will have a paid attendance of approximately 220 attendees. This year the attendance was 118 paid attendees, and of this number the attendees were split 50% students and 50% technologists. This is different from the past years that have normally been 75% students and 25% technologists.

I would attribute the lower attendance to two factors. First is the continued state economic issue which has slowly improved but continues to hamper increased job demand necessary to absorb the technologists without jobs and the students that are graduating from their programs and finding that nothing permanent is available. The second reason for the lower attendance would likely be the need to have more and better advertising and publicizing of the CSRT Annual Conference. The ability of the CSRT to directly communicate with ALL of the Imaging Professionals in CA continues to be a problem due to the lack of e-mail addresses and telephone numbers. Mailing addresses are available but the enormous mailing costs are out of the current financial reach of the CSRT.

The quality of the speakers and the subjects which they had for their presentations were, as usual, of a very high standard and pertinent to our profession. I would not count this as a contributor to the lesser attendance. It is a tribute to the speakers that they did such a good job and the CSRT thanks them for giving up personal time to help advance the knowledge of the attendees.

On a positive note, in spite of the lower attendance the Annual Conference was a financial success for the CSRT. The Annual Conference Committee and, especially Chairperson Barbara Kissel, should and need to be commended for their job at being able to host a conference of such quality and yet stay well within the budget which was allowed for organizing the Annual Conference. To date, the financial statistics indicate that the expenses were 50% less than allocated and that the A.C. has realized a 56% profit. This is outstanding and I want to personally congratulate Barbara and her A.C. Committee for a job well done.

I also want to thank all the sponsors that continue to loyally support the CSRT annually. It is truly appreciated and the CSRT has posted your contribution of sponsorship on the CSRT website. I hope to see more and more sponsors in the future. Technologists are the face and the front line of the
profession. Credit should be given to them, more so now than ever before because of public awareness of ALARA and of Imaging Gently.

It takes a tremendous amount of time and effort on the part of the Annual Conference committee to perform all the items that need to be addressed as they work through the organizing of the A.C. I would name everyone but I may miss someone and that would not be acceptable, to all of you who took part, my thanks. Additionally, not enough can be said for the volunteers that help in maintaining efficiency of the program throughout the conference. Thank you.

This is my last official task as an official member of the CSRT Board. It has been my pleasure to have been elected President of the CSRT, not once, but twice and to have been a part of the Board for many years before that. I want to thank my mentor, Anita Slechta, for being there when I needed her advice and for being a tremendous resource for information.

Thank you all my fellow Imaging Professionals and all the future students of a great profession.

Fred L. Castillo, R.T.(R), ARRT, CRT
Past-President, CSRT
Financial Chair, CSRT
The Volunteer Experience
Voices from this year’s student volunteer army.

Rich Lehrer, MSRS, BS Ed., RT(R), ARRT, CRT

Every CSRT conference or seminar that I have attended over the past 20 odd years has solicited the help of volunteers. Typically, that volunteer force is comprised of students who serve a variety of functions to ensure a smooth running conference. This year, there were 3 major educational conferences for technologists; Imaging with Care held this past April at Cedars Sinai, The Latest & the Greatest held at Sutter General in Sacramento, and most recently, Professional CARE and Safety, at the annual conference. Volunteers are asked to perform a myriad of tasks, preparing the conference materials the day before, collecting evaluations, staffing the registration area during “crunch time”, acting as runners, timekeepers, door monitors and generally a willing set of hands to do what needs doing. In return, our volunteers are welcomed to attend the conference and lunch gratis. What do the volunteers think of the experience?

“I was concerned that the speakers would be dealing with subjects that I wouldn’t be able to understand”, says John Knight of the PIMA institute in San Diego. “On the contrary, the subject matter was relevant to students, working techs, program managers, and educators alike.” His classmate John Focarelli agrees. “I was fortunate enough to be a time keeper for the speakers, so I was able to sit in the front row and actively listen to all the fascinating topics that were discussed. I especially enjoyed listening to these topics because they were pertinent in what I am actually experiencing in my clinical sites now.”

Christina Sung from CSUN relates some good advice for future students. “This was my second CSRT Annual Conference. I attended my first one at Stanford University and did not
meet anyone or introduce myself to anyone. I just sat at my table with my classmates. I also remember not understanding the majority of the lectures because I was so new to the program. This year was a lot better. I was able to understand what the presentation were and could keep up with all of them including the Legal and Regulatory Updates. My favorite speaker is Dennis Bowman and his lecture on Digital Exposure and Radiation Safety. My classmates and I agree that we wish we could rotate through his site. We all felt that we could learn so much from him.

“Mr. Bowman really re-enforced the idea of ALARA for me when he was explaining how important proper technique is due to Digital Radiography and how the image looks good when the proper technique is selected and how it also looks good when a “Super High” technique is selected. It is all too easy to over-expose a patient if you don’t take ALARA into consideration!” Jeff Schultz from Santa Rosa Junior College comes away with reinforcement and practical advice of what educational programs are teaching.

Some of the assignments allowed students access to the larger radiologic community. “My task for the day was registering people into the conference and collecting the credit paper at the end of the conference”, says Beenal Patel from CSUN. “The ability to meet people who I had heard of previously was a great experience.” Classmate Christina Sung agrees. “Because I attend many conferences and events I have been able to meet many people and some of them attended this year’s CSRT Annual Conference. I recognize people’s names and faces and it is so nice when they remember me. It’s almost like a reunion, you know? That’s why I was glad to be put at the registration desk. I was able to greet people and ask students what school they are from.”

“I gained from the volunteer experience anticipation of an exciting career. Being able to attend a conference enabled me to see how the world of radiologic technology is dynamic and progressing. I learned what to expect in the future of radiology from knowledgeable technologists in the field”, says Danielle Reszitnyk from Pasadena CC.

“It was amazing to meet other students that are passionate about the radiology field. The board members were also very kind and encouraging,” says Nav Rasan from CSUN. “It was an incredibly positive environment and made me feel that I made an excellent choice deciding on radiology as a career and joining the CSRT.”
"I heard from several people that going to the conference would be a great experience for me as a student, and after going, I completely agree. I was warmly welcomed from all the active members running the conference, as well as from other student volunteers from around the state. We had a great time helping set up for the big day and getting to know one another." (Dan Focarelli, PIMA). John Knight, also from PIMA relates, “It was nice to interact with fellow students from other schools who are at a different time in their education. The technologists I met were very supportive also. They seemed interested in how far along I was in my schooling, sharing experiences from their past, which by the way, seem to not have changed much over time. For example, C-arms can be hard to figure out, some surgeons are not very nice people, not all technologists do a good job of helping students and it is a rewarding feeling to pull off a difficult exam. Giving support and receiving support from people who are on the same path as me was an unexpected bonus. It appears that I am involved with an educated, witty, and professional group of people!”

Revelations and practical knowledge were the order of the day. Ahiezer Gargallo from Pasadena CC offers this nugget, “I used to install Corian countertops and showers. To know that Corian is better than granite or marble because it doesn’t emit radiation was a plus.”

“Mr. Goerner was my favorite” says Jeff Schultz, SRJC “not only because he has co-written a book with the great Dr. Bushong, but because he was speaking about Radiobiology and X-Ray Physics; topics that my class is discovering right now. I enjoyed hearing him tell the “Radium” stories and the importance of caution during fluoroscopic procedures. His comic relief throughout his lecture was great as well!”

You may have heard the expression that there is no such thing as a free lunch, but the CSRT conference for our volunteer force does not subscribe to that. “One of my great memories was the lunch provided by the CSRT” says Nav Rasan from CSUN. “The raffles and activities were very entertaining. I also sat at a table with a few volunteers from San Diego and exchanged stories, it was great to meet other students from other parts of California and discuss things we found to be helpful, i.e. study tips etc.”

While lunch was popular, the most commented aspect of our volunteers was the value of student bowl. John Focarelli from PIMA and Beenal Patel enrolled at CSUN echoed, “I really enjoyed getting together at the end of the day with the other students to what’s called the “Student Bowl” where all the active members got together and challenged each of us to a bank of questions that will be similar to what will be asked on the ARRT examination. It was an active, challenging way to get us involved while we
learned.” And as Christina Sung, CSUN very practically points out, “Besides, who doesn’t want to win some prizes?”

“The Student Bowl was a delight”, (Jeff Schultz, SRJC). “Normally I don’t enjoy tests and quizzes because of all the stress and pressure that is associated with them, but this quiz session was quite fun! All of the questions were so helpful and the process of elimination was a new, fun process.”

“I think my favorite memory will be of my program director, Anita Slechta”, says Christina Sung, CSUN. She was like a proud mother watching Danny Lopez and Kris Miranda battling it out for First Place in the Student Bowl. It was so incredibly intense and long. Those two know their stuff! But watching the anxiety on Anita’s face to see who would win and then, the happiness when Danny won, I will never forget that. I told my classmates and some of the graduates that Anita was one proud mama that night.”

“Volunteering for the event proved not only to be a rewarding experience, but I also learned a lot about leadership. All the CSRT board members were very kind and answered my questions, they were very encouraging and supportive and it was nice to be provided with their mentoring. Because of this experience I wanted to be more involved and signed up for the student committee. To top things off I won the raffle for the free basketball tickets. I have never won a raffle so this was an added perk.”

Congratulations on winning the tickets Nav. Congratulations to all our volunteers for having the pluck to do something positive and worthwhile for themselves and for CSRT. We could not have such a successful event year after year without the assistance nor the support of our student volunteer force, and we are indebted to you. The committee and the board look forward to having you attend again next year as volunteers, or as technologists.
A Snapshot Into the Day and Life of a Lithotripsy Technologist

“Leave No Stone Unturned”

By Clark A. Pearson RT(R)(F), ARRT, CRT

Lithotripsy Technologist

Lithotripsy defined is “the crushing of calculi”. Calculi is a mineral deposit that can form a blockage in the urinary system—in other words, kidney stones. Kidney stones can be caused by a variety of reasons, such as age, sex, heredity, lack of water intake, diet, or occupation. When a stone is formed and it is too large or painful to be passed through the urinary tract, there must be another way of getting it out and reliving the patient's pain. One way is to use therapeutic shock waves generated in water through the body to crush the stones.

In 1969 the idea of using externally generated shock waves was originated by German physicists working at Dornier Systems, Ltd. By 1974 the collaboration between the Dornier Systems and the Institute for Surgical Research in Munch steered them to the first clinical application of extracorporeal shock waves (SWL) on February 2, 1980. It received approval from the FDA in December, 1984. Since then treatment of urolithiasis with SWL has gained wide acceptance.

In the past I had acquired a class A commercial driver's license and a certificate in information technology. Upon completing my degree in radiologic technology sciences, I decided to incorporate my other licenses to make myself more marketable in various jobs in the radiological technology fields. I was directed to apply for a job at Next Med, a mobile lithotripsy company that works in 38 states and the only one that certified by The Joint Commission. I was hired and after 3 months of extensive training I was assigned a route in Northern and Central California with a truck, lithotripsy equipment providing service at various hospital locations.

The scheduler assigned to me by the company sets the appointments with the doctor's office. She then provides me with my scheduled hospitals. I drive to the hospital, arriving 2 hours before the first appointment, and set up the equipment in the allotted operating room. My equipment comprises of a C-Arm (GE) 9900, a monitor (9900), lithotripter (F2 lithotripter), and an anvil case, weighing approximately 3000 pounds. After arranging the equipment, I calibrate and prepare for the patients by checking the charts. I interview each patient, ensuring they are ready for the procedure.
The surgical team consists of the urologist, anesthesiologist, a couple of circulating nurses, and the lithotripsy technologist (me). The patient is positioned and anesthetized, water is added under the patient and using the C-arm the stone is located and the procedure is started. It can take from 45 minutes to an hour to complete the procedure, depending on the energy level and the shocks per minute. The goal is to turn the stones into very fine particles that exit from the kidney through the ureter and out the body. Sometimes the patient has to be stented. Using fluoroscopy and table movement, I help the doctor by directing him to the correct location. Positioning and KUB’s are used for mapping the location of the stone in real time. Stones move and the more precise the radiograph the quicker the procedure will be completed. Instead of x-ray eyes, a lithotripsy specialist must see with different eyes. Stones that were white on a radiograph are black on the monitor and the c-arm shows the stones in 3 dimensions. A typical day may consist of 5 to 11 patients. The doctor must remain in the operating room while the procedure is running. If he steps out, the procedure must stop.

Advancing technology may someday incorporate using nanotechnology in eliminating the kidney stones. Microscopic nanobots that dissolve the stones could be inserted directly into the urinary system and exit out the body through the urine. Or perhaps another type of ray will be discovered that can locate and dissolve the stones without the need for anesthesia. Until then I will take my equipment to the patients and fulfill the medical dictum of *primum non nocere*—“First Do No Harm”.

Lithotripsy |
Is it Attachment or Simply Caring?
By: Jennifer Pavon – Student @ CCSF

“Don’t get attached to the patients, it will only make your job harder.” This is what I hear often at the hospital. This resonates in the back of my mind over and over when I perform an exam on a patient that is in great pain with a severe illness. I ask myself, “Am I getting attached or am I providing good patient care when I take the extra steps to make the patient’s experience just a little easier on them?”

When I started my clinical education, I got placed at a hospital that wanted to make every patient experience as smooth and pleasant as possible. I learned that it was very important to have good communication with patients before doing an exam, not only to build patient rapport, but also to make sure that the correct exam was ordered based on the obtained patient history. The level of patient care at this facility wasn’t just to obtain good x-rays, but it was also to approach every patient with respect and demonstrate that as technologists, we care about them and their health.

Going to a different hospital was a bit of a shock! I felt that my standards for patient care had been set very high but what I was seeing was a hospital that treated patients as if they were puppets with no feelings, opinions or pains. I performed a hip exam on a patient that couldn’t move which made the exam difficult. As I was struggling to position the patient, there were two technologists behind the control console arguing about personal issues! I was embarrassed that the patient had to hear this conversation, but even more upset that the focus was not on the patient. As I continued the exam, wondering if the patient had a broken hip, the conversation continued and I could sense that the patient was becoming distressed. This was not a solitary incident; this kind of behavior was ongoing behavior.

I came to realize that professionalism was high on the list of what I wanted to incorporate into my practice. It is upsetting to me when patients come in for an exam and I can see that they are worried, but the technologist shows no empathy towards them. It seems that sometimes technologists treat this profession as just a job, and forget they are treating real people.

I have observed many different levels of patient care. I have decided to take the best of what I have seen and incorporate it into my own practice. I will keep the patient care that I feel is less than ideal in the back of my mind while I continue my education, and realize that this is not the kind of radiographer I want to be. I have decided that I will treat every patient as if it were my own family member on the table. This means I won’t have inappropriate conversations while in the middle of an exam. I believe the patient deserves my full and undivided attention. I will obtain as much patient history as I can, not just to assure myself that I am doing the correct exam, but also to increase my scope of knowledge on the purpose of certain exam. This is the bare minimum that technologists should be doing. Ask yourself this question, “if it were you on the x-ray table, would you like to receive the type of patient care that you have been giving to all your patients?”
The Clinical Experience: From a Student’s Standpoint  
By: Pauline Tan – Student @ CCSF

I have been in the Diagnostic Medical Imaging Program at City College of San Francisco for two years now and have had three semesters of clinical experience, mostly good experiences but sometimes not so pleasant.

When I first got into the DMI Program at City College of San Francisco, the thing I was looking forward to the most was getting into my clinical rotations. I was excited to find out which hospital was going to be my “home” hospital, the one in which you begin your clinical rotation and also the one at which you complete your internship. I was excited to meet new people and experience what it was like to be part of a radiology department as a radiologic technologist. The didactic part of the program was not so exciting to me since it just seemed like typical classroom work. So, when the third semester rolled around, I was more than ready to jump in and get started.

My first semester of clinicals went quite well. I was the new student there and I was there two days per week. Everyone at my “home” hospital was welcoming and helpful, ready to answer any questions I had. One of the few problems I had was adapting to a new environment and new people. Not only do you have to adjust to your “co-workers,” but you also have to get used to talking with patients as well as other people in other departments such as nurses. From what I have seen at the hospital as a volunteer was different from my actual clinical experience. One thing I had to learn very quickly was how to talk to patients. In class we were taught how to talk to patients, but you do not really get the feel of it until you actually have to talk to a patient. I learned how to talk to patients as well as other employees in the hospital was by observing the technologists I was with. Some of the techs I worked with have many years of experience and I learned not only how to take x-rays from them, but also how to communicate effectively. My first semester in the clinical setting forced me to come out of my shell but by doing so I felt that my communication skills and people skills have improved.

In my third semester of clinical experience, I was rotated out to a different hospital for more experience and it felt like it was my first semester at clinical all over again. This was one of the most challenging experiences in the program thus far. I was forced to come out of my shell yet again and I felt like a “fish out of water.” Since it was my third semester, the clinical instructor, as well as other technologists had higher expectations of me. They expected me to know positioning and also manual techniques. As a rotating student, the technologists do not know exactly how you work, and sometimes they take over the exam. Therefore, you have to prove to them that you are competent without stepping on any toes. Many times, the clinical instructor and techs offer you constructive criticism, which is sometimes hard to take but is very helpful. This taught me to approach situations differently and effectively and also allowed me to further improve my communication skills.

Many of the skills I obtained from my clinical experience, whether it was taking x-rays or communicating, was learned through observation and constructive criticism. Constructive criticism, I learned during part of my second semester and my third semester, is one of the hardest things to take. But I also learned that if you take it gracefully and not personally, you learn so much more and it helps you evolve as a student. I learned how to communicate with patients, co-workers, and other staff members of the hospitals. My skills as a radiologic technology student also improved in terms of my routine for exams, positioning of patients, and setting manual technique. All in all my clinical experience, although sometimes unpleasant, was a great experience and the one from which I learned the most.
Live to the Fullest
Yaniv Illouz – Student @ CCSF

The technologist said, “Always be good to your body and live life to the fullest.” She told me these words as we sat in an empty CT room. This room would tell a story; a story that in a few short hours would have a beginning and an end, and has shaped my foundation in the start of my own career as a radiologic technologist. Although today I am more informed, more educated and have more experience under my belt, I was still unprepared for what I experienced on one of my clinical days not too long ago.

I was two weeks into my CT rotation and was getting familiar with the steps needed to get exams done. Our next patient was a female in her late forties who was experiencing flank pain. She came on a gurney accompanied by her husband. I obtained her medical history, asked questions, and then proceeded with an abdomen scan. When the examination was complete I helped her out of the examination room and rolled her out into the hallway where her husband was waiting. Her husband had a bright smile on his face and he reassured her saying, “It’s gonna be alright, hun. It’s probably just kidney stones.” I noticed that he searched to make eye contact with me, so I smiled back and then they were gone.

About three hours later the couple returned. I asked my supervising technologist why the woman had returned. Apparently, the radiologist had found something on her images and that the plan was to do a biopsy. As we prepared to move her from the gurney to the CT couch the gaze of her husband had once again pulled me in. His demeanor had now changed. His smile had been replaced by concern and I sensed that he desperately wanted to make eye contact with anyone in the room. He was looking for answers and I found myself looking for them too. We performed a second examination on his wife and once it was completed, we again brought her out to the hallway where her husband was waiting. This time the mood was unsettling and I felt helpless.

The CT room was now empty and curiosity took a hold of me. I wanted answers. I needed to know what was found. I asked the technologist if we could speak to the pathologist that examined her, and to find out the results. About five minutes later the technologist and I were in the pathologist’s office and were given the option to view the slides of the female patient’s tissue. It was cancer. It was the result I had feared the most. I had hoped that her problem was benign, but the pathology report indicated a stage four malignancy.

The technologist and I headed back to the CT department. During our walk back, the technologist told me she had overheard the couple was on vacation and that they were just stopping off in San Francisco before heading on to Hawaii. I had several thoughts swarming through my head. What will they do now? Where are they in their thoughts? Did the couple know their fate? I felt numb and could not get past this diagnosis. I had become emotionally invested. I wanted to know if they had kids, how long she would have left, what she would leave behind. This story had started out so innocently with what appeared to be kidney stones. A story so benign had turned so malicious in a matter of hours. How do you let that go?
The technologist saw this in my eyes. She gently advised me that scenarios like this one would be part of the job and that there are going to be things we see that seem so cruel. She could tell that I had put myself in the couple’s shoes. She told me that you cannot survive in this field as a radiologic technologist if you take on the burden of every patient.

I understood what she was saying. I cannot control what happens to others, and I only have so much to control about what happens to myself. My mantra, therefore, is to live life to the fullest and to be good to each and every patient. You never know how a diagnosis will change their lives. This particular diagnosis changed mine!

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**Still a Student**
Roxanne Munyon –Student @ CCSF

When I was in the second semester of the DMI program at City College of San Francisco I found myself not able to talk to anyone outside of the DMI program. Not that I didn’t want to, but I couldn’t. My head was so full of radiology I couldn’t begin to make small talk. I’m a little better now, but I still have a head full of radiology and I love to talk about it! It was with great delight when I arrived at the CSRT annual conference at the Good Samaritan Hospital in Los Angeles, a whole auditorium full of people who love to talk about radiology too! As a volunteer and Chair of the Student Committee, I had the opportunity to talk with other students and CSRT members. Some of the other volunteers were on the student committee but we had only communicated through email or our online meetings. This is one of the great things about attending these conferences. Technology has made our lives easier, but there is nothing like meeting face to face and having a conversation with people. It is great to listen to the experience of those who have been in the profession for many years and wonderful to feel the enthusiasm of students. The CSRT creates many wonderful opportunities for students, including scholarships, raffle prizes and the fun of the student bowl! I know that we at the CSRT are trying to move in the direction of online CE units and I think this is good. But, I really enjoy the face to face meetings and listening to the always interesting lecture topics of this fun group of people!
The Safety Zone
Casey Martinez – Student @ CCSF

As a student I began my first rotation in portables, fluoroscopy and surgery. I felt very exposed and began to wonder where I should stand when making exposures in these situations. We all know the cardinal rules of time, distance and shielding but these are minimum standards that still leave the rad tech exposed to ionizing radiation. I felt strange when I was in surgery and the x-ray beam was aimed in my direction. So I did some research on beam geometry and scatter because I knew that back scatter is the primary source of radiation exposure to health care workers.

Technique and collimation are important considerations. Collimating to the area of interest not only saves the patient from exposure to surrounding tissue but it reduces the amount of scatter produced and, therefore, protects the medical personnel. Regarding technique, a higher kVp can be used with a lower mAs, with a lower mAs there is a smaller quantity of photons to scatter. Collimation and technique change can be used in any situation.

When on portables the machine has an extension cord for the exposure button. The question was which direction should I go with it. I found that the scatter was less if I stood to the left or right of the patient at a right angle to the x-ray beam and avoid the area near the patients head or feet. There should be as much distance as possible between the exposed field and the operator. If possible duck behind an object or wall because the scatter travels in a straight line.

During fluoroscopy, an important consideration is the use of the magnification mode. This should only be used when needed, not as normal part of the exam. The magnification mode uses a higher mA so more scatter and patient dose is inevitable. Often the x-ray tech needs to assist the Radiologist during the exam and are in the room during the exposures. It is important to stand behind the Radiologist during this time. Not only is the Radiologist standing at the area of least scatter exposure but they are also behind a lead curtain protecting them from the scatter. So even though the health care workers are standing close enough to hand contrast to the patient and communicate with them it is still the safest place to be.

As I stated my first OR experience was a little unnerving but I soon found out who was more exposed to ionizing radiation in this situation. In the OR suite we are talking about the use of a C-arm. Basic projections are the PA and lateral. For a PA we want to stand at a right angle to the beam, the left or right of the patient. The x-ray beam is coming from below the patient so most of the scatter is going to be below the table. The x-ray Tech needs to be aware that the surgeons are usually standing directly next to the patient during surgery and is responsible for considering their safety as well. To minimize the exposure to personnel the Image Intensifier needs to be as close to the patient as possible and the tube needs to be as far away from the patient as possible. The surgeons are standing on the tube side so they are receiving the bulk of the patient scatter. More of the scatter is produced on the tube side so the x-ray tech is actually in the safest position. With the Image Intensifier as close to the anatomy as possible the Tech can be assured that most of the scatter will be directed to the image intensifier and if this is not enough they can use the extension cord for the exposure button and step back even further. It is also better not to angle the beam if possible because this causes more exposure to the personnel. If an oblique view is needed, it is better if the surgeon can rotate the patient into an oblique position.
With a few basic safety tips the Rad Tech can protect themselves and everyone else in the room during an exam. It is important to minimize the radiation dose to the patient and all of the personnel must be protected as well. As always time, distance and shielding are in use but don't forget about the safety zone.

References


Why attend Radiologic Conferences
Rishi Subedi – Student @ CSUN

If you are someone who does not believe in attending conferences then this may be the article to read. Recently, I attended a conference hosted by the California Society of Radiologic Technologist in Los Angeles. This conference was very helpful in educating the participants about the legal aspect of the field of radiologic technology and the proper technical factors to use with Computed Radiography systems among other topics. As a matter of fact, I have already started applying some the technique changes in my clinical setting and they are excellent.

As a student radiographer, I have attended three different conferences held at Stanford University Medical Center in Palo Alto, Sutter General Hospital in Sacramento and the Good Samaritan Hospital in Los Angeles. Attending these important events requires time and money, but in the end it was well worth my efforts. I found the conferences educational and inspiring and I encourage every level of radiography students to attend. Even those students who have not started the program yet should consider attending!

Conferences have taught me so much about my chosen profession above what is taught in the classroom. The information I gained recently included updates on radiation protection, changing equipment and exposure techniques. These topics are incredibly relevant to my current areas of study as well as my future as a radiographer. I am excited about my future and cannot wait for the next opportunity I have to attend again to add to my knowledge about radiologic technology and the use of radiation.

During these conferences, I found that most of the presenters are interesting and there’s always something that you can learn from their discussions. I found it important to always write the presenter’s information down, in case if I have any further questions. These intelligent and knowledgeable people are researchers, doctors, as well as radiographers and they present material that is essential for our careers and patient care. When I am finally a RT, I will continue to attend conferences as much as possible. Besides earning continuing education points, I will gain important knowledge required for me to be the most effective radiographer possible.
### 2012 Annual Conference Student Bowl Winners

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<tr>
<th>Name</th>
<th>Program</th>
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<tr>
<td>Danny Lopez</td>
<td>California State University, Northridge</td>
<td>1st Place</td>
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<tr>
<td>Stephanie Brighi</td>
<td>Mills-Peninsula Hospital School of Diagnostic Imaging</td>
<td>2nd Place</td>
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<td>Christopher Kemper</td>
<td>Merritt College</td>
<td>3rd Place</td>
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<td>Cristy Clinghan</td>
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<td>Beenai Patel</td>
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<td>Mike Dubon</td>
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<td>James Wilson</td>
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<td>Cynthia Cook</td>
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<td>Sue Ann Marinas</td>
<td>Mills-Peninsula Hospital School of Diagnostic Imaging</td>
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Student Bowl Winners:
- Danny Lopez (1st Place)
- Stephanie Brighi (2nd Place)
- Christopher Kemper (3rd Place)

They all got A’s

"Uh-Ohh"
2012 Annual Conference Scientific Displays

1st Place – Mills Peninsula

2nd Place – Kris Miranda, CSUN

3rd Place – Mills Peninsula
2012 Scholarship & Award Winners

Lorenza Clausen and Anita Slechta with Anna Ames Scholarship Award winner, James Chase, Pasadena City College.

Ruth McMillin Scholarship Award winner, Shomal S. Kuver, Mills Peninsula.

Golden Apple Award winner, Roxanne Munyon, City College of San Francisco.