



Newsline

California Association for Medical Laboratory Technology
Vol. 40 No.4
December, 2014

Published by and for CAMLMT

Linda Burton Named CLS of the Year for 2014

The Installation Banquet attendees on September 20 were delighted to hear that Linda Burton was named CLS of the Year. Linda has been an Active Member of CAMLMT since 1978, and we do mean ACTIVE! Beginning with many terms as Diablo Valley President, Chapter Delegate, Nominations Committee Member and Convention Committee Member, Linda has been an invaluable member since the first day.

When the Diablo Valley Chapter dissolved, she moved to the East Bay Chapter and has continued her active involvement, serving as an East Bay Chapter Executive Board Member (2011 to present), working on the Spring Seminar and being an ever-present member of District II Convention Committees. Remember the CAMLMT Bears? The sweaters worn by the first bear, introduced in 1997, were designed and knit by Linda and friends. Decorations, Registration, Secretary – she has filled almost every position, and helped to keep many Convention Committees on track.

Coming to present day, we have special reason to applaud Linda's service to CAMLMT. When Helen Sowers moved to a less active role after more than a decade as CAMLMT's Continuing Education Coordinator, Linda volunteered to serve as Acting CE Coordinator until a permanent replacement can be found. Linda volunteers one day a week at the CAMLMT Executive Office to perform the work necessary to maintain CAMLMT's CE provider status, and is also willing to assist the office staff with other tasks when needed. No job is too big or too small for Linda – she jumps in with great enthusiasm and does what needs to be done.

Linda holds a Bachelor of Science degree and is licensed as a CLS by the State of California. She worked at Muir Laboratories (formerly known as Mt. Diablo Hospital Laboratory) from 1970 to 2010 in various capacities and specialties, retiring in 2010.

Linda loves to camp and RV with her husband, Tom. She is close to her family. A new puppy is the most recent arrival in Linda and Tom's lives. Linda belongs to a philanthropic sorority, Beta Sigma Phi. Not "just" a knitter, Linda spins fibers to make yarn, and her husband knits with the yarn she creates.

We congratulate Linda on being chosen as the 2014 CAMLMT CLS of the Year!



Chris Darmanian (L) presenting CLS of the year to Linda Burton (R)



IN THIS ISSUE . .

AWARDS.....	1,3
MESSAGE FROM THE PRESIDENT.....	2
INTRODUCING PRESIDENT ELECT.....	3
CONVENTION HIGHLIGHTS AND PHOTOS.....	4-7
STUDENT FORUM REPORT.....	8-9
WISH LIST.....	10
REVIEW SEMINARS SCHEDULED.....	11
THANK YOU TO 2013 EXHIBITORS AND SPONSORS.....	11-12
POLITICAL UPDATE.....	13-15
MEASLES - UNITED STATES 2014 (1.0 CE).....	15-18
DISTANCE LEARNING ANSWER FORM.....	19
DISTANCE LEARNING ORDER FORM.....	20
MEMBERSHIP APPLICATION.....	22
2014 CONTINUING EDUCATION SCHEDULE.....	BACK COVER

Message From the President



As I begin my fourth year as your President, I realize that we need to continue to strengthen our organization and stabilize our revenue streams. We are working on better ways to explain to our colleagues about the importance of belonging to CAMLT as members and/or supporting CAMLT. Without at least doubling our current membership from 5% to 10% of licensed and certificated laboratory personnel, we simply will not have the resources to continue much longer. As a first step, we must better inform all members of our profession of our activities and significance via local chapter activities, newsletters, website postings, social media, and face to face interactions. We plan to keep you informed with regular publications of Newsline, up-to-date postings on the CAMLT website and Facebook and announcements at our Statewide Seminars and Annual Meeting. Make an effort to stay informed about the issues that concern you and be part of the commitment to make CAMLT strong.

Each year, legislative efforts are brought forth by various groups which seek to dilute the provisions of laboratory law and lower personnel standards for those performing laboratory testing. Between term limits

and the number of bills that pass through the legislature in a year, it is impossible for a legislator to keep up with each and every issue. The squeaky wheel gets heard. Because of CAMLT's Legislative Committee's and Public Policy Advocates' efforts this year, CLSs had their work scope expanded to include directorship of waived laboratories beginning January 1, 2014, chiropractors and optometrists are not allowed to perform a wide range of clinical laboratory tests without oversight and we did not let the legislature erode our way of living! Yet our membership represents only a small portion of the laboratory community. We know we compete with other State and National Organizations for your hard earned dollars but by joining CAMLT, you will have a voice in Sacramento, educational opportunities at reduced rates, professional networking at all levels, CE scholarship opportunities, and student support through scholarships, grants, and student programs. How could you NOT afford to be a member of CAMLT?

During the House of Delegates meeting last September, the delegates elected a full slate of officers; see list of elected officers under Convention Report. Following a report on the findings, actions, and recommendations from the Decision Task Force, the delegates participated in a discussion on how to best leverage our remaining resources to modernize CAMLT and mitigate our financial constraints.

My hope is that we grow in numbers and in influence. Many of us came home from our annual meeting filled with so many good ideas for professional growth, enhancing the strength of our organization or for getting involved. Now that more than two months has passed since our annual meeting, the reality of life sets in and we go back to the routine. Instead, let's make this year and every year to follow different. I vowed to continue as your Board president for a fourth term with the understanding that more of you will participate, more non members will join and members renew their memberships promptly; CAMLT leadership cannot do this alone. CAMLT needs each and every one of you to get involved; our own and CAMLT's future will depend on it.

Finally, I would like to take this time to thank others who have also continued to serve beyond their terms on the Board of Directors: Jan Vogel, Immediate Past President; Rhoda Mae Ocubillo, Secretary; Melissa Parry, District II Consultant; and Aylmer Dy, District IV Consultant. We will continue our collaborative efforts with other organizations to make our voices and influence stronger. We will continue to focus on patient safety, legislative advocacy, education and work force development. To each of you who are currently holding a CAMLT office or those of you I will meet or work with in the coming year, I thank you for your support. We cannot be successful without each other; there is strength in numbers. Let's transform our ideas into reality and make our actions meaningful to all.

Sincerely,

Dora Goto
President, CAMLT

ANNOUNCING CAMLT EDUCATION AND RESEARCH FOUNDATIONS WINNERS - 2014

Winners of free continuing education scholarships (6.0 hours CE) are chosen from among attendees at CAMLT seminars and the convention. Congratulations!

Winter Seminar North:

#1: Ellen Thomas
#2: Ulka Parikh

Winter Seminar South:

#1: Debbie Sue Stein
#2: Jerry Erdle

Summer Seminar North:

#1: Larry McCain
#2: Levina Mertz

Clinical Laboratory Science Clinical Internship Award (\$500 each)

Jacqueline Maniago, Trainee at Kaiser Permanente
Matthew Previte, Trainee at Loma Linda University
Dawn Camille Garcia, Trainee at University of California, Irvine

Student Stipend Award (\$100 each)

Stevie Ramos, Trainee at Kaweah Delta Health Care District
Victor Chen, Trainee at Quest Diagnostics
Barbara Saavedra, Trainee at Huntington Memorial
Henry Nguyen, Trainee at Providence St. John's Health Center
Lenard Yacoub, Trainee at University of California, San Diego

Membership and Eleanor Kelley Awards

Daisy Magtibay
Loretta Heckman
Ben Blando

Ruth Baldwin Memorial Award

Druscilla Capobres

Introducing CAMLT President-Elect Ilene Dickman, in her own words:

I am a native Angeleña. I have never lived anywhere else. I was lucky enough to be one of the first beneficiaries of Title IX in 1972-73, which enabled me to go through college on a tennis scholarship and obtain my BSMT at CSULA in 1976. I received my MSMT from Cal State Dominguez Hills in 1980.



I joined CAMLT West Side Chapter in 1988, and became active there immediately. A Chapter president for 15 years, I have served on many District 4 convention and nomination committees.

Outside the lab I have participated as a community volunteer in many ways: as a Girl Scout leader, a PTA leader, on the board of directors of a religious institution, a classroom parent volunteer and tutor.

Education and training has always been my major interest but I have many years of doing a wide variety of things in the clinical laboratory.

Through CAMLT I have made many long lasting friendships and have created professional networks that have helped me to become a better Clinical Lab Scientist.

I look forward to serving on the CAMLT Board of Directors and representing our members at the local and state level.



Patty Fawkes of Tulare/Kings Chapter receiving the Newsletter of the Year award from Chris Darmanian for the "Hemogram."

CAMLT/NEWSLINE

Volume 40, No.4
Dora Goto, President

Editorial correspondence should be addressed to CAMLT/ *Newsline*, PO Box 1814, Fremont, CA 94538.

Scientific articles submitted for publication in the CAMLT/ *Newsline* should be approximately 1,000 words in length or about three pages, double spaced, typed materials. Please include references when appropriate. Since the articles are relatively short, the editors do not feel that an abstract is necessary. All articles should be accompanied by a picture of the author.

Articles describing procedures should include materials and methods as well as results. All graphs and charts should be reducible. Abbreviation (except for those in common scientific usage) should be defined and introduced parenthetically when first used in text.

Advertising correspondence should be addressed to PO Box 1814, Fremont, CA 94538, (510) 792-4441, FAX (510) 792-3045, e-mail: office@camlt.org.

Copyright California Association for Medical Laboratory Technology. Permission to reprint any part of this publication must be obtained in writing from: NEWSLINE, CAMLT, December, 2014.

2014 CAMLT Convention

CAMLT Celebrates 75 Years; Plans Future Direction



On September 19, 2014 CAMLT officers, members and friends gathered at the Paradise Pier Hotel in Disneyland for a celebration – 75 Years!! The weekend was packed with educational opportunities, exhibits, and many chances to enjoy the time together, while association business was conducted during the Annual House of Delegates.

ANNUAL HOUSE OF DELEGATES

On Saturday, September 20 the House of Delegates convened to plan for CAMLT's future.

The Elections brought a full slate of candidates to carry out these plans. Those elected are pictured above.

Our President-Elect is Ilene Dickman of West Side Chapter. Ilene has been a member of CAMLT since 1988 and brings years of experience as a chapter officer and convention committee member to her new role as President-in-Training. See her story on page 3.

Re-elected to their positions were: Secretary Rhoda Mae Ocuillo of South Bay Chapter, District II Consultant Melissa Parry of Santa Clara Chapter, District IV Consultant Aylmer Dy of Eastland Chapter, and Finance Chair Christine Darmanian of Fresno Chapter.

Susan Bartlett of North Valley Chapter, Becky Olsen of Tulare-Kings Chapter and Robert Parada of Los Angeles-Los Valles Chapter were elected as members of the Judicial Committee.

Nominations Committee Members elected are Josie Schrage of Sacramento Chapter, Maricele Postadan of San Francisco Chapter, Valerie Trenev of San Luis Obispo-Santa Barbara Chapter, Jae Kim of South Bay Chapter and Marlene DeMers of San Diego Chapter.

Legislation

Kathy Rees and Russ Noack of Public Policy Advocates gave a report on legislative issues of importance to CAMLT and the laboratory community. Ann Tonini of Tulare-Kings Chapter gave delegates a pep-talk on the importance of getting to know your local legislators before we need to call on them for assistance.

CAMLT Carries it Forward

The Report of the Decision Task Force was presented by Jane Bruner and Christine Darmanian, describing the process the Task Force used to study the financial problems faced by CAMLT and the recommendations which resulted. Revenues are down due to decreased membership and smaller attendance at seminars. Costs have been monitored carefully and kept as low as possible, but in spite of careful stewardship and many donated hours of work, the budget does not balance. The Task Force instituted several programs designed to increase membership, including special rates, increased presence on social media and a push to involve student members and encourage their interest in belonging to a professional organization. Results were encouraging but slow to take effect.

CAMLT's most valuable asset is the Executive Office condo in Fremont. The decision was made to place the office on the market so that the profit from the sale could be used to fund continued efforts to bring the organization back into solvency. As of this date no qualified buyer has come forward, though the building is still being shown and is expected to sell within the next few months. Once the sale takes place, plans to bring CAMLT into a more tech-savvy state can move forward.

Open Forum Discussion

The House of Delegates then spent time listening to ideas put forth by the delegates on how to give CAMLT a greater presence and voice on social media, how to improve the CAMLT web site, and ideas for recruiting and retaining members, especially the newer members of the profession. The ideas were recorded and will be discussed by the Board and shared with the membership.

SOCIAL EVENTS

Fun Nite found us viewing giant photos of past conventions (who were all those youngsters in outdated fashions?!) and watching a slide show reviewing the highlights of CAMLT history since 1939. (Kudos to Debbie and Les Revier for collecting the photos and crafting a marvelous slide show.)

From Berenice Stevens, CAMLT's first President and Executive Director, down to Dora Goto, our three-time current President of amazing gifts, we watched the parade of those who have served CAMLT so well for all our many successful years. At least 20 CAMLT Past Presidents were on hand to join the celebration, and so were our student delegates and their friends – the future of our profession.

Legislative achievements were highlighted. CAMLT's outstanding record as a provider of Continuing Laboratory Education was lauded. We laughed about the clever, silly, just-plain-fun skits that have heralded each year's convention theme and plans. There was lots of "*Oh what was her name – she was from XX Chapter*" and "*Gosh, I haven't seen so-and-so for years, where is he now*", and "*Wasn't that a fun evening – do you remember such-and-such?*"

The high point of the evening was the opening of the Time Capsule, which had been put together 25 years before by Lorene Chalfant with contributions from chapter members. All sorts of little treasures were found inside – treasures to a CLS of 1989 that is – such as Auto Analyzer tubing, a Bacti loop, latex gloves, and printed treasures such as Chapter Newsletters, copies of Newslines from 1989, and the 1989 Convention Badge. The full list of 35 items (one unidentified even by the experts) is found in this issue.

The Lab Pac Drawing was held – and the winners were: Richard Peterson, First Prize, Roger Price, Second Prize and Laura Garcia, Third Prize.

Lab Pac Luncheon

The Lab Pac Luncheon featured a conversation with Janet Nguyen, member of the Orange County Board of Supervisors and candidate for the California Assembly. Supervisor Nguyen is the first Asian-American and first Vietnamese-American to serve on the Board of Supervisors.

She described her journey with her family as they escaped Vietnam on a small wooden boat across the South China Sea in search of freedom, a journey which led her to seek a degree in Political Science from UC Irvine and devote herself to a life of public service.

The Installation Banquet was a lovely, formal evening of celebration. Dora Goto was lauded for her unprecedented term of service as President. She was presented with a special gift designed to smooth her way into full use of miniaturized media devices.

CAMLT Office Staff members Nancy Gutilla and Jeannie Eleen received rousing cheers for their years of devoted and creative service to the CAMLT cause. Engraved vases were given to them as a token of appreciation.

The happy close of the evening was the announcement of the CLS of the Year – Linda Burton of East Bay Chapter. The full story of that choice is on page 1.

EXHIBITS

26 Exhibitors and Recruiters were on hand Friday and Saturday to demonstrate new laboratory products, offer technical advice and expertise, and acquaint attendees with great laboratory positions available across California. Always an integral part of our Conventions, the Exhibits form a bridge between the laboratory industry and laboratorians, those who use the products and seek the jobs.

All in all, the 2014 Convention was a very satisfying and successful weekend. Congratulations to the Convention Committee – Debbie Revier, Les Revier, Marlene DeMers, Marc Bernaldez and Becky Rosser. Kathleen Doty, Dora Goto, Mary Jeanne Stavish and the Executive Office Staff also contributed. Cheryl Jackson-Harris planned and led the Student Forum, which was a great success – more about that event on pages 8-9.





CAMLT 2014 Convention Student Forum

The annual CAMLT Student Forum brought 97 clinical science trainees and their Program Directors and Education Coordinators along with undergraduate students together September 19th.



Cheryl Jackson Harris, Program Director of the California State University, Dominguez Hills, Clinical Internship Program, chaired the Forum. Students from all the approved training programs had been invited to submit posters or presentations on topics of interest to their fellow interns; five were presented at the Forum. Attendees and the three judges viewed the posters and had a chance to talk with the poster designers about the technologies and research demonstrated. Dora Goto, President, CAMLT, gave an opening message to all the attendees.

Posters and their authors were:

- “Direct Identification of Bacteria from Positive Blood Culture Bottles using MALDI-TOF” by William Lyle and Ruba Hsen, CSUDH trainees from Children’s Hospital Los Angeles.
- “Cardiac Markers” by Tong Lam and Barbara Saavedra, CSUDH trainees from Huntington Hospital.
- “HIV Testing” by Erin Mesplou and Henry Nguyen, CSUDH trainees from St. John Providence.
- “Special Chemistry for Iron, Lead and Copper” by Dawnelle Catipon and Marino San, CSUDH trainees from Kaiser Regional North Hollywood.
- “The Case of an Antibody to a High Incidence Antigen” by Ron Garcia, Loma Linda University.
- “High Titer Low Avidity Antibody” by Iona Decena, Loma Linda University.
- “Identifying anti-G in a Prenatal Patient” by Michael Bond, Loma Linda University.
- “RhIG” by Margarita Boiadjian and Jennifer Sase, CSUDH trainees from Northridge Hospital.
- “HIV Immunoassay Technologies: Multispot HIV-1/HIV-2 vs Westernblot” by Zyra Achray, Maria Aparicio, Victor Chen and Jolie Pham, CSUDH trainees Quest Diagnostics, Valencia.

- “Laboratory Techniques used for Monitoring Renal Transplant Patients” by Cathrine Chong, Alejandra Cortez, Kristine Gih, Jafrin Hossain, Do Nguyen, Joseph Nolasco, Giancarlo Rodriguez and Rose Silvas CSUDH trainees from UCLA Medical Center.

The five podium presentations:

- “Fecal Matter Transplants” by Elias Fedai, Thao Nguyen, Edgar Ruiz, Paula Salango and Jorge Sincuir, CSUDH trainees from Cedars-Sinai.
- “Advantages of Autoverification in the Clinical Laboratory” by Lenard Yacoub and Allen Twu, CSULA.
- “Improvement of Laboratory Technology at Long Beach Memorial Medical Center” by Robert Crose, Jennifer Eng, Phong Tran and Lisa Truong, CSUDH trainees from LBMMC.
- “Routine Antibody Analysis Prior to Surgery” by Dawnelle Catipon and Marino San, CSUDH trainees from Kaiser Regional North Hollywood.
- “Web Based Student Resources” Irene Tran, Education Coordinator from Cedars-Sinai.

Lastly, a most interesting talk on “Laboratory Experience in Africa” was given by Mike Nyhill.



The laboratory and blood bank are part of a hospital ship. The Mercy Ship, a marine hospital, travels along the coast of Africa and docks at ports in need of medical care. This year they had to by-pass Sierra Leone due to the Ebola outbreak and went to Madagascar.

While the talk was being given the judges Mark Briones, Patty Fawkes and Dr. Rose Leigh Vines determined award winners. Mark Briones presented the awards.

Two presentations received awards:



a) Advantages of Autoverification in the Clinical Laboratory



b) HIV Immunoassay Technologies: Multispot HIV-1/HIV-2 vs Westernblot

Three posters received awards:

a) "Direct Identification of Bacteria from Positive Blood Culture Bottles using MALDI-TOF",



b) "Cardiac Markers",



c) "Laboratory Techniques used for Monitoring Renal Transplant Patients".

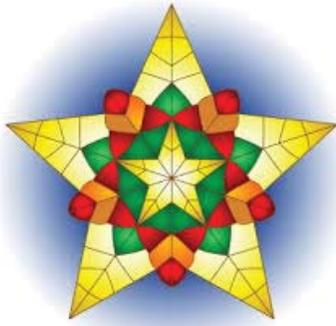


Best Presentation representing the theme of the Convention was "Improvement of Laboratory Technology at Long Beach Memorial Medical Center".



The program closed with a round of applause for the Chair, Cheryl Jackson Harris and another for all the trainees who worked to prepare the very interesting and informative posters and presentations.





CAMLT's Got a Little List, We've Got a Little List...

WHEN YOU WISH UPON A STAR, as they say, dreams can come true. But what if the Star has the wishes? We know you think CAMLT is a stellar organization for laboratory folks. Maybe you feel you have benefited personally from CAMLT's programs – met some great people, attended seminars that helped you grow in your profession, learned about the legislative process and how each of us can become involved. Maybe you would like to return the favor by helping to fund one of CAMLT's excellent programs. Or maybe you would like to fill an immediate, concrete need for the organization. Well, we have just the thing for you...our CAMLT Wish List!

Wish List Donors

We extend our sincere thanks to the individuals and chapters who have contributed to CAMLT's Wish List from December 1, 2013 to November 30, 2014.

CANOPUS \$5000 - \$9999
Fresno Chapter

RIGEL \$500 - \$999
Jae Kim

CASTOR \$20 - \$99
Normadene Carpenter
Virginia Vorous

VEGA \$2500 - \$4999
Eastland Chapter

SPICA \$100 - \$499
Corinne Carroll
Christine Darmanian

CAPELLA \$1000 - \$2499
Tulare/Kings Chapter
Dora Goto

Joyce Estes
Karen Machida

Donation categories are named after stars seen from Earth in descending order of brightness.

If you are feeling generous, please contact the CAMLT Executive Office at office@camlt.org or complete the information below and fax to (510) 792-3045, email to office@camlt.org or return to:

<p>CAMLT 1895 Mowry Avenue, Suite 112 Fremont, CA 94538</p> <p>Name: _____ Address: _____ _____ City/State/Zip: _____ Phone: _____ Email: _____</p>	<p>\$ _____ toward legislative activities \$ _____ cash donation</p> <p><input type="checkbox"/> My check is enclosed, payable to CAMLT. <input type="checkbox"/> You may charge my donation to my credit card. <input type="checkbox"/> Visa <input type="checkbox"/> Master Card</p> <p>Card # _____ Exp. _____</p> <p>3 digit security code on back of card _____</p> <p>Signature _____ Date _____</p>
---	--

For those of you who have given in the past, thank you. Your kindness is appreciated and valued by all!

Please Note - "Contributions or gifts to California Association for Medical Laboratory Technology are NOT tax deductible as charitable contributions for income tax purposes. However, they may be tax deductible as ordinary and necessary business expenses subject to restrictions imposed as a result of association lobbying activities. CAMLT estimates that the non-deductible portion of your contributions - the portion which is allocable to lobbying - is 33%."

California CLS/MLT Licensure Examination Review Seminars 2015**

This program was initially held in 2004 and repeated in 2005-14. Evaluation of the California CLS and MLT exam results show that participants in our review classes passed the exam at significantly higher rates than historical passing rates. Therefore, CAMLT will be presenting review sessions in 2015. These seminars are directed toward persons preparing for the California CLS or MLT licensing and/or certifying examinations and licensed individuals in need of a comprehensive review.

This review seminar is not eligible for continuing education credit for current licensees.

Dates	Presentation Location	Time	Cost
February 7, 8, 21, 22 & March 7, 8 Sat & Sun	John Muir Medical Center (Concord) 2540 East Street Concord, CA	8:30am - 6pm all days	\$80 per day or \$395 for all 6 days
August 15, 16, 29, 30 & September 12, 13 Sat & Sun	John Muir Medical Center (Concord) 2540 East Street Concord, CA	8:30am - 6pm all days	\$80 per day or \$395 for all 6 days

Additional information, exact locations of seminars, seminar abstract, registration forms, and related educational/course material for purchase are updated regularly at www.camlt.org and click on the Professions and Examination Review Seminars course link.

****Sponsored in part by: John Muir Health**

Bay Valley Medical Group, Affiliated with University HealthCare Alliance

Thank You to the Sponsors who made the “Voices of the Past” Convention a SUCCESS!

Quest Diagnostics
East Bay Chapter
San Francisco Chapter
Santa Clara Chapter
Fresno Chapter
Vibrant America Clinical Lab
Napa Valley Chapter
San Diego Chapter

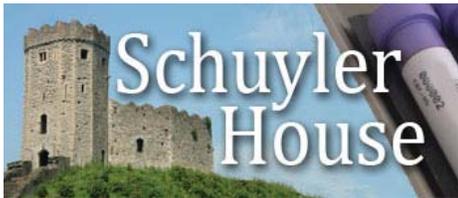


Vibrant America
CLINICAL LAB

Thank You to the Exhibitors who made the
 “Voices of the Past” Convention a **SUCCESS!**



Abbott Diagnostics
 ACC Med Logistics
 Advanced Instruments, Inc.
 Aureus Medical Group
 Beckman Coulter
 California Department of Public Health
 City of Hope
 Community Medical Center
 Global Focus Marketing & Distribution
 Helena Laboratories
 Inova Diagnostics, Inc.
 Instrumentation Laboratory
 Kaiser Permanente
 Medical Electronic Systems, LLC
 New Voice for Health - energyDOTs
 Nova Biomedical
 PMA Services, Inc
 Quest Diagnostics
 Sarstedt, Inc.
 Schuyler House
 Siemens Healthcare Diagnostics
 Stago
 Sutter Health
 Sysmex
 UCLA Health
 Waters Corporation



CAMLT Political Update

Public Policy Advocates, LLC, October 2014

LEGISLATURE

The Legislature concluded the 2013/14 two year session and adjourned at 3:00 a.m. on August 30. The new 2015 Session will commence the first week in January. CAMLT has not enjoyed a quiet legislative session. Right out of the box this session, **CAMLT co-sponsored legislation to allow CLS's be directors of waived labs. We were successful.** This became critical in the face of chiropractors, optometrists, naturopaths, and pharmacists all sponsoring legislation over the years to allow them to not only perform waived tests, but become waived lab directors. We were particularly challenged by the chiropractors and optometrists this year—second runs at clinical laboratory science for both of these groups. While we have been able to stem and limit their efforts to date regarding clinical laboratory science, we are told that optometrists, pharmacists, and naturopaths **will be back next year** with major scope expansion bills—most likely including incursion into clinical laboratory science without requisite training and education.

What does this all mean for CAMLT? CAMLT **must** be strong both financially and in membership. CAMLT is the **only** professional organization that **exclusively** protects the legislative interests of CLS's, MLT's and other laboratory personnel in the best interest of the patient and in the best interest of the laboratory profession. It is the **only** professional association representing clinical laboratory science that retains a lobbying firm in Sacramento to be **the** voice for clinical laboratory personnel in Sacramento before the legislature and state government.

Organized labor has been extremely helpful in the past, and indeed, co-sponsored our CLS waived lab director bill. But labor unions also represent chiropractors, optometrists, and pharmacists in addition to CLS's. So Labor has not been in a position to take these other professions head on when they want to expand their scopes into clinical laboratory science. That has fallen to CAMLT. Other laboratory personnel professional associations may provide continuing education, certification, or fellowship—but **none** have a Sacramento presence or help to underwrite CAMLT's Sacramento stewardship on behalf of the **entire** profession. The chiropractors, optometrists, and pharmacists have strong associations, even though they number far fewer in terms of licensee's state wide. They have strong and expansive political grass roots networks, and they have Political Action Committees that contribute to candidates in the hundreds of thousands of dollars. The clinical laboratory profession **must** come together to unify and shore up its efforts to support CAMLT's legislative and political agenda if it wants to preserve its profession—**not tomorrow, but now.**

RECRUIT NEW CAMLT MEMBERS! CONTRIBUTE TO LAB-PAC!

This has been a very rigorous and active legislative session in terms of bills legislating a frontal attack on the CLS and MLT professions. Only you can ensure the growth and vibrancy of a strong, well organized CAMLT. Rise to the challenge. Recruit members to your professional organization — CAMLT. Contribute to your Lab-PAC. Meet with your legislators. Ensure the best possible patient safety in laboratory testing, and preserve your important profession.

LEGISLATION

In 2013, Public Policy Advocates (PPA) successfully co-sponsored legislation for CAMLT, AB 1215 authored by Assembly Members Curt Hagman and Chris Holden, and heavily opposed efforts to expand scopes of practice by optometrists and chiropractors into clinical laboratory testing without a laboratory director. The Associations representing these professions are expected to renew these legislative efforts next session.

The following is legislation that the CAMLT Legislative Committee directed PPA to engage in or monitor this past year. Check the CAMLT website for updates on bill status, Legislator lists, and Committee assignments.

AB 1215 (Hagman & Holden) Clinical Laboratories, as amended 4/9/13

CAMLT co-sponsored AB 1215 with the Engineers and Scientists of California, IFPTE, Local 20; Western States Council of the United Food and Commercial Workers; and United Nurses Associations of California/Union of Health Care Professionals. In the wake of attempted legislation over the years to allow various allied health professionals to do laboratory testing without a lab director, AB 1215 permits Clinical Laboratory Scientists, both generalists and specialists, to be laboratory directors for purposes of clinical laboratory tests classified as waived under the Federal Clinical Laboratory Improvement Amendments of 1988 (CLIA). Under CLIA, CLS's can be waived lab directors. Under California law, only physicians, surgeons, and naturopaths can be lab directors, along with optometrists and pharmacists who secured statutory authority to be lab directors in a limited way. It is only reasonable that the very professionals trained specifically in clinical laboratory science be utilized to the maximum of their education and training. The implementation of the Affordable Care Act (ACA) will extend health benefits to millions of uninsured Californians by 2018. This will dramatically increase the demand for care and ancillary services such as clinical laboratory testing. AB 1215 will improve access to clinical laboratory tests and testing oversight without compromising patient safety. Co-

authored by Assembly Member Hagman, a Republican and Assembly Member Holden a Democrat, AB 1215 passed out of the Legislature without a single “no” vote. AB 1215 was also supported by the Blood Centers of California, American Federation of State, County and Municipal Employees, and the California Society of Pathologists. AB 1215 was signed into law by the Governor on August 28, 2013.

AB 2143 (Williams) Clinical Laboratories, as amended 5/27/14 - NEUTRAL

This bill was introduced at the request of the Chiropractors to allow them to do waived clinical laboratory tests without having to have a laboratory director. Assembly Member Williams’ office (Democrat-Santa Barbara) contacted CAMLT shortly before the bill was introduced to ascertain what position CAMLT would take on the Chiropractors’ proposal. CAMLT lobbying firm, PPA, met with the Assemblyman and his staff to inform them that CAMLT would be opposed. After extensive meetings and conference calls with the author’s office, the chiropractors, California Medical Association, the pathologists and other interested stakeholders, we finally ascertained that while the chiropractors wanted more, they really needed a bill to allow them to do four dip stick urine tests (urine specific gravity, urine protein, urine blood, and urine sugar tests) listed on the National Registry of Certified Medical Examiners, for the sole purpose of completing the Department of Motor Vehicles medical examination report to determine if an individual is fit to have a commercial driver’s license. CAMLT then proposed amendments that would allow chiropractors to do only these four tests as long as the chiropractor was active and listed on the federal Department of Transportation National Registry of Certified Medical Examiners and that these tests were for the sole purpose of completing the Department of Motor Vehicles medical examination report. The chiropractor would be required to obtain a valid certificate of waiver and comply with all CLIA requirements. If there were an abnormal finding on the test, the chiropractor would have to refer the driver’s license applicant to a primary care physician. With these amendments, CAMLT removed its opposition. **However, it should be noted that this took an enormous amount of time on the part of CAMLT’s legislative committee, Board President, and lobbying firm. CAMLT was the only organization among the stakeholders representing solely laboratory personnel.** As narrowed, AB 2143 was signed into law by the Governor on August 22, 2014.

SB 492 (Hernandez) Optometric Corporations, as amended 8/19/14 – OPPOSE TO WATCH

This bill would significantly expand the scope of practice for optometrists and was opposed by the California Medical Association and the California Academy of Eye Physicians and Surgeons. Of particular interest to CAMLT was that the bill at one point would have authorized an optometrist

to perform or order any laboratory and diagnostic imaging test. The bill outright repealed the agreements reached last year restricting optometrists to CLIA waived tests necessary for the diagnosis of conditions and diseases of the eye or adnexa within their scope of practice. In 2013, SB 492 was scheduled to be heard in the Assembly Business, Professions and Consumer Protection Committee on August 13 but was pulled from calendar and made into a 2-year bill. The bill sat idle until June 2014 where it was heard, amended, and passed out of the Assembly Business, Professions, and Consumer Protection Committee. Prior to this hearing, we contacted the California Optometric Association, the author, and members of the Committee that this bill totally violated previous agreements reached. The author agreed to restore existing law with regard to optometrists being limited with regard to laboratory testing by confining tests essentially to the eye that were waived only. The measure moved to Assembly Appropriations Committee and was amended; at that point CAMLT removed its opposition. From Appropriations, SB 492 then moved to the Assembly Floor where it was eventually placed on the inactive file at the request of the author of the bill, Senator Hernandez. It should be noted, however, that the optometrists are seeking a huge scope expansion—in essence allowing them to perform functions currently reserved to ophthalmologists, dermatologists, and plastic surgeons. We fully expect to see a bill back again next Legislative Session.

MEET WITH YOUR LEGISLATORS

Have you met with your legislators? Make sure to educate your elected officials about clinical laboratory issues! Meet with your legislators in your district, send letters explaining CAMLT’s philosophy, invite legislators and their staff to tour your laboratories, and introduce yourself as a constituent. The sponsors of legislation, such as optometrists and chiropractors, to expand their scope of practice into area of clinical laboratory testing are well heeled and well organized. It is imperative that CAMLT members engage in the process that affects the profession.

- **Which Legislator represents your home or laboratory?** Visit the CAMLT website for a current roster of Legislators and the cities they represent at: <http://www.camlt.org/legislation>
- **Visit their offices.** Make an appointment with your Legislators’ District offices.
- **EDUCATE!** Explain to Legislators and their consultants what it takes to be a Laboratory Professional; what you do; why it is important to maintain the integrity of the Laboratory Director when other personnel are doing laboratory tests, even if they are waived; why other allied health providers shouldn’t be Laboratory Directors; the lab personnel shortage and what it takes to eliminate it.

MEASLES—UNITED STATES 2014

DL-011

1.0 CE

Level of Difficulty: Basic

Adapted from Morbidity and Mortality Weekly Report, May 29, 2014 / 63 (Early Release; 1-4) Measles – United States January 1-May 23, 2014

**By: Helen M. Sowers, M.A., CLS
Dept. of Biological Science (Retired)
California State University, East Bay**

OBJECTIVES

At the end of this course the participant will be able to:

1. outline the history of incidence of measles in the United States.
2. discuss the reporting of the disease.
3. state the symptoms, identification, and confirmation of a case of measles.
4. define the requirement for considering a case of measles as imported.
5. explain the laboratory methods for diagnosis of measles.
6. discuss the problem of imported measles including the spread to at-risk groups.
7. list public health containment strategies for measles.

INTRODUCTION

Measles is a highly contagious, acute viral illness that can lead to serious complications and death. In 1963 a vaccine against measles was introduced in the United States, leading to a precipitous drop in the number of measles cases (an average of about 500,000 per year in the U.S. before the vaccine). Although measles elimination (i.e., interruption of year-round endemic transmission) was declared in the United States in 2000, importations of measles cases from endemic areas of the world continue to occur, leading to secondary measles cases and outbreaks in the United States, primarily among unvaccinated persons. To update national measles data in the United States, CDC evaluated cases reported by states from January 1 through May 23, 2014. A total of 288 confirmed measles cases have been reported to CDC, surpassing the highest reported yearly total of measles cases since elimination (220 cases reported in 2011). Fifteen outbreaks accounted for 79% of cases reported, including the largest outbreak reported in the United States since elimination (138 cases and ongoing). The large number of cases this year emphasizes the need for health-care providers to have a heightened awareness of the potential for measles in their communities and the importance of vaccination to prevent measles.

Confirmed measles cases in the United States are reported by state and local health departments to CDC using a standard case definition (available at <http://www.cdc.gov/vaccines/pubs/surv-manual/chpt07-measles.pdf>). A measles case is considered confirmed if it is laboratory-confirmed or meets the clinical case definition (an illness characterized by a generalized rash lasting ≥ 3 days, a temperature of $\geq 101^{\circ}\text{F}$ [$\geq 38.3^{\circ}\text{C}$], and cough, coryza, and/or conjunctivitis) and is linked epidemiologically to a confirmed case. Measles cases are laboratory confirmed if there is detection



Make it a priority to meet with your Legislators. Remember, these interactions are integral components of **your** grassroots program. For tips, please refer to the **CAMLT Grassroots Guide** on the website.

Kudos to Carol Beatty, John Coburn, Linda Burton, Richard Peterson, Dora Goto, Abbie Beran, Roberta Pearce, Christine Darmanian, and A. Mark Briones for meeting with their local legislators and Susan Starnes for writing to her local assembly member!

in serum of measles-specific immunoglobulin M, isolation of measles virus, or detection of measles virus nucleic acid from a clinical specimen. Cases are considered imported if at least some of the exposure period (7-21 days before rash onset) occurred outside the United States and rash occurred within 21 days of entry into the United States, with no known exposure to measles in the United States during that time. An outbreak of measles is defined as a chain of transmission of three or more confirmed cases.

Patients with reported measles cases this year have ranged in age from 2 weeks to 65 years. Forty-three were hospitalized, and complications have included pneumonia (five patients), hepatitis (one), pancytopenia (one), and thrombocytopenia (one). No cases of encephalitis and no deaths have been reported.

Measles cases have been reported from 18 states and New York City. Most cases were reported from Ohio (138), California (60), and New York City (26). Fifteen outbreaks have accounted for 227 (79%) of the 288 cases. The median outbreak size has been five cases (range: 3-138 cases). There is an ongoing outbreak involving 138 cases, occurring primarily among unvaccinated Amish communities in Ohio.

Of the 288 cases, 280 were associated with importations from at least 18 countries. The source of measles acquisition could not be identified for eight cases. Forty-five direct importations (40 U.S. residents returning from abroad and five foreign visitors) have been reported. Almost half of these importations were travelers returning from the Philippines, where a large outbreak has been occurring since October 2013. Imported cases were also associated with travel from other countries in the World Health Organization (WHO) Western Pacific Region (seven cases), as well as countries in the WHO South-East Asia (eight), European (four), Americas (three), and Eastern Mediterranean (one) regions. Measles genotype information was obtained from 103 of the 288 cases. Four measles virus genotypes were identified: B3 (67 cases), D9 (23), D8 (12), and H1 (one).

Most of the 288 measles cases reported this year have been in persons who were unvaccinated (200 [69%]); 30 (10%) were in persons who were vaccinated. Among the 195 U.S. residents who had measles and were unvaccinated 165 (85%) declined vaccination because of religious, philosophical, or personal objections, 11 (6%) were missed opportunities for vaccination, and 10 (5%) were too young to receive vaccination.

DISCUSSION

Measles elimination has been maintained in the U.S. since elimination was declared almost 15 years ago. However, approximately 20 million cases of measles occur each year globally, and importations into the U.S. continue to pose a risk for measles cases and outbreaks among unvaccinated persons. The 288 measles cases reported during January 1-May 23, 2014, including the ongoing outbreak involving 138 persons in Ohio, represent the highest number of measles cases reported for that period since 1994. The increase in measles this year serves as a reminder for health-care providers to be cognizant of the possibility of measles cases occurring in their communities.

Health-care providers should maintain a high suspicion for measles among febrile patients with rash. Patients with clinical symptoms compatible with measles (febrile rash plus cough, coryza, and/or conjunctivitis), should be asked about recent travel abroad and contact with returning travelers, and their vaccination status should be verified. Measles cases have been initially misdiagnosed

as Kawasaki disease, dengue fever, and scarlet fever, among other diseases, underscoring the importance of considering measles in the differential diagnosis of clinically compatible cases. It is important to obtain viral specimens for confirmation and genotyping on any patient when measles is suspected, in addition to serology. Genetic characterization of measles virus can suggest the likely source of an imported virus. Because patients with measles often seek medical care, early recognition of suspected measles cases and implementation of appropriate infection control measures are vital to reduce transmission in health-care settings.

Where possible, because of the high transmissibility of measles, patients with suspected measles should be promptly screened before entering waiting rooms and appropriately isolated (i.e., in an airborne isolation room or, if not available, in a separate room with the door closed), or have their office appointments scheduled at the end of the day to prevent exposure of other patients. To assist state and local public health departments with rapid investigation and control efforts to limit the spread of disease, suspected measles cases should be reported to local health departments immediately. State health departments should notify CDC about cases of measles within 24 hours of detection.

To date in 2014, a total of 40 importations have been reported among unvaccinated returning U.S. travelers. Among these, 22 acquired measles in the Philippines, where 32,030 measles cases and 41 measles deaths have been reported from January 1 through April 20. The large number of importations from the Philippines highlights how importations are related to increases in measles incidence in countries that are common destinations for U.S. travelers. Because measles remains endemic in countries in five out of the six WHO regions of the world, including India, from where six importations have occurred this year, the source of imported cases could be any country where measles continues to circulate. This underscores the importance of ensuring age-appropriate vaccination for all persons before international travel to any region of the world.

Health-care providers should remind persons who plan to travel internationally, including travel to large international events and gatherings (e.g., the 2014 FIFA World Cup in Brazil), of the increased risk for measles, and encourage timely vaccination of all persons aged ≥ 6 months without evidence of measles immunity. One dose of measles-mumps-rubella (MMR) vaccine is recommended for infants aged 6-11 months before travel, and 2 doses for persons aged ≥ 12 months, with a minimum interval between doses of 28 days.

In the three largest outbreaks of 2014, which account for over a half of all cases this year, transmission occurred after introduction of measles into communities with pockets of persons who were unvaccinated because of philosophical or religious beliefs. An example is the Ohio outbreak that began after Amish missionaries returned from the Philippines. As of August 15, 2014, 377 cases have been reported in Ohio. The center of the Ohio outbreak is Knox County, where 195 cases have been reported. Although there is no official count of how many Amish live in Ohio, researchers at Ohio State University estimate there are about 33,000 Amish living in the six-county area where the outbreak began. The Amish religion does not prevent them from seeking vaccinations, but because their children don't attend traditional public schools, vaccinations are not required and therefore not routine. Since the outbreak started thousands of Amish in Knox and surrounding areas have lined up to be vaccinated. Some of the unvaccinated missionaries told local health officials they would have been vaccinated before

going if they had been told there was an outbreak there.

In California there have been 61 cases as of July 18, 2014. Twenty-two of these occurred in Orange County. Over 93% have been import-associated, with almost 60% associated with returnees from the Philippines.

LABORATORY DIAGNOSIS OF MEASLES (adapted from reference 2)

It is recommended that measles be diagnosed using serological methods that measure virus-specific antibody in single or paired sera. However, measles virus can also be detected from various clinical samples by using cell culture techniques or molecular techniques. Assays based on detection of the measles virus are not suitable as diagnostic tests but are useful for detection of virus or genome for molecular epidemiological studies.

Summary of measles identification methods:

Serological assays:

Measles infection is diagnosed serologically by 1) detecting measles specific IgM antibodies or 2) quantifying measles specific immunoglobulins in order to demonstrate a significant rise in IgG between paired acute and convalescent sera.

1. Measles specific IgM antibodies.

Measles-specific IgM antibodies appear within the first few days of the rash and decline rapidly after one month. Their presence provides strong evidence of current or recent measles infection. IgM is also produced on primary vaccination, and, although it may decline more rapidly than IgM produced in response to the wild virus, vaccine and wild virus IgM cannot be distinguished by serological tests. A vaccination history is therefore essential for interpretation of test results.

The following methods are commonly used to detect measles-specific IgM:

- a. IgM capture ELISA requires only one blood sample for case confirmation. Assays show 97% sensitivity compared with the plaque reduction neutralization test (PRNT) in detecting infection in vaccinated infants. In clinically confirmed cases, the sensitivity and specificity of capture assays were 91.8 and 98.2 respectively, while the positive and negative predictive values were 98.2 and 92.0 respectively. The test can be done with minimal training and results may be available within 2-2.5 hours of starting the assay. Capture ELISA assays are considered superior to indirect assays, since they do not require the removal of IgG antibodies. Several capture IgM ELISA kits are commercially available, though not all have the same sensitivity and specificity.
- b. IgM indirect ELISA requires only one blood sample for case confirmation. In clinically confirmed cases, the sensitivity and specificity in indirect assays were 90.3% and 98.2% respectively, while the positive and negative predictive values were 98.2 and 90.5 respectively. The test can be done with minimal training and results can be available within 3-3.5 hours of starting the assay. Indirect ELISA assays are the most widely used. However, this type of

assay requires a specific step to remove IgG antibodies. Problems with the incomplete removal of IgG can lead to inaccurate results.

2. Quantification of measles-specific immunoglobulins by
 - a. Virus neutralization: the plaque reduction neutralization test (PRNT) requires two serum samples, acute and convalescent, and shows 100% sensitivity in confirming clinical measles. Single titers of greater than 120 are consistent with 100% protection against clinical measles. The test is not easy since it requires trained technologists with expertise in tissue culture. Results are available 10 days after the receipt of the convalescent serum.
 - b. Hemagglutinin inhibition: requires two serum samples, acute and convalescent, and shows 98% sensitivity in detecting antibody increase in vaccinated students and 100% sensitivity in vaccinated infants. The test is not easy since it requires technologists trained in viral serology. Results are available 2 days after receipt of the convalescent serum.

Virus Isolation:

Virus isolation is costly, time-consuming, and requires a sophisticated virology laboratory with cell culture facilities and virus isolation capabilities. Measles virus is extremely temperature labile and specimens for virus isolation must be transported to the laboratory rapidly under reverse cold chain conditions. For these reasons it has been recommended that virus isolation not be used for primary diagnosis and be limited to regional reference and global specialized laboratories for the purposes of genetic analysis only.

VACCINATION RECOMMENDATIONS

Although high population immunity throughout the United States (through maintaining $\geq 90\%$ MMR (measles, mumps, rubella) vaccine coverage among children ages 19-35 months and adolescents) prevents spread from most importations, coverage varies at the local level, and unvaccinated children tend to cluster geographically, increasing the risk for outbreaks. Thus, maintaining high measles vaccination coverage is critical to prevent large measles outbreaks in the U.S., and to protect and limit spread to infants too young to be vaccinated and to persons who cannot be vaccinated because of medical contraindications.

In the United States, routine MMR vaccination is recommended for all children, with the first dose given at age 12-15 months, and a second dose at age 4-6 years. Catch-up vaccination is recommended for children and adolescents who have not received 2 appropriately spaced doses. Unless they have other evidence of immunity, adults should receive at least 1 dose of MMR vaccine, and 2 appropriately spaced doses of MMR are recommended for health-care personnel, college students, and international travelers.

SUMMARY

Despite maintenance of measles elimination in the United States, importations from endemic countries continue to occur and have caused an unusually high number of measles cases in 2014. The most frequent sources of importations were unvaccinated U.S. travelers returning from abroad, with subsequent transmissions among clusters of unvaccinated persons. Encouraging timely

delivery of measles vaccination for persons traveling internationally and sustaining high vaccination coverage in the United States in accordance with the Advisory Committee on Immunization Practices routine immunization schedule are essential to limit measles importations and the spread of disease. To help expedite public health containment strategies, health-care providers should maintain a high awareness of measles, implement appropriate infection control measures when measles is suspected, and promptly report suspected cases to their local health departments.

REFERENCES

1. Mortality Weekly Report, May 29, 2014 / 63 (Early Release;1-4) Measles – United States January 1-May 23, 2014
2. www.measlesrubellainitiative.org/wp-content/uploads/2013/06/Manual-Laboratory-Diagnosis-Measles-Virus-Infection.pdf

REVIEW QUESTIONS

Course #DL-01 I

Choose the **one** best answer

1. Measles elimination was declared in the United States in
 - a. 2000
 - b. 1980
 - c. 2005
 - d. 2010
2. Immunization for measles in the U.S. began in
 - a. 1956
 - b. 1963
 - c. 1984
 - d. 1990
3. The majority of measles cases in 2014 were imported to the U.S. from
 - a. Brazil
 - b. The Philippines
 - c. China
 - d. Europe
4. Typical symptoms of measles include all but
 - a. rash
 - b. fever
 - c. nausea
 - d. conjunctivitis
5. The largest outbreak of measles in 2014 occurred in the Amish in Ohio because of
 - a. genetic susceptibility
 - b. lack of immunization because Amish children don't go to public schools
 - c. importation by missionaries from China
 - d. lack of immunization because their religion bans it
6. Measles cases may be confirmed in the laboratory by all but
 - a. detection of measles-specific IgG antibodies
 - b. detection of measles virus nucleic acid
 - c. detection of measles-specific IgM antibodies
 - d. isolation of measles virus
7. Immunization recommendations in the U.S. include all but
 - a. MMR vaccine coverage for infants starting at 12 months
 - b. second MMR dose at age 7-10 years
 - c. adults showing no evidence of immunity receive one MMR vaccine dose
 - d. Health-care personnel with no evidence of immunity receive two appropriately spaced MMR doses
8. IgM capture ELISA assays are preferable to IgM indirect ELISA because
 - a. indirect ELISA requires two blood samples
 - b. capture ELISA kits are more readily available
 - c. indirect ELISA requires a step to remove IgG antibodies
 - d. indirect ELISA requires more training of personnel
9. To implement public health containment strategies, health-care providers should do all the following except
 - a. implement appropriate infection control measures when measles is suspected
 - b. practice routine immunization schedules
 - c. promptly report suspected cases to the CDC
 - d. maintain high awareness of measles symptoms
10. Immunization recommendations for international travelers without evidence of measles immunity include all but
 - a. one dose of MMR for infants 6-11 months
 - b. two doses of MMR for persons \geq 12 months of age
 - c. use of measles only vaccine
 - d. minimum interval of 28 days between the two MMR doses

Record your answers on the Distance Learning Course Registration Form and Answer Sheet on Page 19.

DISTANCE LEARNING

(Home Study)

Course Registration Form

&

Answer Sheet

INSTRUCTIONS: Upon completion of one or more Distance Learning courses, answer the test questions using the answer sheet below. Copies of answer sheets are acceptable. Submit the following to CAMLT:

1. Signed Registration Form/Answer Sheet
2. Evaluation Form, and
3. Fee (member: \$12/CE unit
non-member: \$15/CE unit)

MAIL TO: CAMLT
1895 Mowry Avenue, Suite #112
Fremont, CA 94538-1766

Please Print Clearly

Name: _____

Home Address: _____

City: _____ State: ____ Zip: _____

Home Tel: (____) ____ - ____ X _____

Work Tel: (____) ____ - ____ X _____

Employed at: _____

CDPH License/Certificate # _____

METHOD OF PAYMENT:

() Member () Non-member

() Check Payable to: CAMLT
(Returned checks subject to a \$20 fee)

() VISA or () MasterCard (indicate card type)

Card #: _____ Exp. Date: _____

3 digit security code on back of card: _____

Signature: _____

Course Title: _____

Course Number: ____ - ____

SIGNATURE (REQUIRED FOR PROCESSING)

circle the one best answer

- | | | | | |
|------|-------|-------|-------|-------|
| 1. a | 7. a | 13. a | 19. a | 25. a |
| b | b | b | b | b |
| c | c | c | c | c |
| d | d | d | d | d |
| 2. a | 8. a | 14. a | 20. a | 26. a |
| b | b | b | b | b |
| c | c | c | c | c |
| d | d | d | d | d |
| 3. a | 9. a | 15. a | 21. a | 27. a |
| b | b | b | b | b |
| c | c | c | c | c |
| d | d | d | d | d |
| 4. a | 10. a | 16. a | 22. a | 28. a |
| b | b | b | b | b |
| c | c | c | c | c |
| d | d | d | d | d |
| 5. a | 11. a | 17. a | 23. a | 29. a |
| b | b | b | b | b |
| c | c | c | c | c |
| d | d | d | d | d |
| 6. a | 12. a | 18. a | 24. a | 30. a |
| b | b | b | b | b |
| c | c | c | c | c |
| d | d | d | d | d |

Distance Learning Evaluation Form

This evaluation form **MUST BE RETURNED TO CAMLT** along with your review questions. Your comments help us to provide you with better continuing education materials in the home study format. We welcome and encourage any additional comments. Please respond to the following statements by circling the number that agrees with your assessment of the statement with "5" meaning you strongly agree, "4" meaning you agree, "3" meaning you have no opinion, "2" meaning you disagree and "1" meaning you strongly disagree.

1. Overall, I was satisfied with the quality of this course.
5 4 3 2 1
2. The objectives of this course were met.
5 4 3 2 1
3. Difficulty was consistent with the no. of CE hours.
5 4 3 2 1
4. I will use what I learned from this course.
5 4 3 2 1
5. It took me _____ hours to complete this course.
6. What did you like or dislike about this program?

CAMLT DISTANCE LEARNING COURSES

CAMLT is approved as a provider of continuing education programs in the clinical laboratory sciences by the California Department of Public Health as a CA CLS Accrediting Agency (#0021).

Permission to reprint any part of these articles, other than for CAMLT credit, must be obtained in writing from the CAMLT Executive Office.

Course #/Title (PLACE A CHECK NEXT TO EACH COURSE ORDERED)	CE Units	Level of Difficulty
<input type="checkbox"/> DL-905 - The Bug Everyone Has - Epstein-Barr Virus:A Case Study	2.0	Basic
<input type="checkbox"/> DL-906 - Ergonomics – An Intermediate Self-Study Package for Safety	2.0	Intermediate
<input type="checkbox"/> DL-909 - A Safety Plan for Laboratories	1.0	Basic
<input type="checkbox"/> DL-922 - Hematology Case Study:A Hypochromic, Microcytic Anemia	1.0	Basic
<input type="checkbox"/> DL-950 - Smallpox	2.0	Basic
<input type="checkbox"/> DL-954 – Updated Review of Blood Collection Equipment	1.0	Basic
<input type="checkbox"/> DL-956 - Patty Pancreas	2.0	Intermediate
<input type="checkbox"/> DL-957 - A Bacterial Carcinogen – <i>Helicobacter pylori</i>	2.0	Intermediate
<input type="checkbox"/> DL-958 - A Plague on US	1.0	Basic
<input type="checkbox"/> DL-963 - Patient Identification	1.0	Basic
<input type="checkbox"/> DL-965 - Infectious Disease:A Gender Bias	1.0	Basic
<input type="checkbox"/> DL-966 - Cystic Fibrosis and Microbial Infections	2.0	Intermediate
<input type="checkbox"/> DL-967 - Thyroid Hormones and Thyroid Diseases	2.0	Intermediate
Newly Revised! <input type="checkbox"/> DL-968 - An Introduction to HIV, HIV Infection, and AIDS - 2014	3.0	Basic
<input type="checkbox"/> DL-973 - Hemoglobin A1c Testing of Patients with Hemoglobinopathies	1.0	Intermediate
<input type="checkbox"/> DL-974 - Anaerobic Bacteriology for the Clinical Laboratory	3.0	Intermediate
<input type="checkbox"/> DL-975 - Megaloblastic Anemia	1.0	Intermediate
<input type="checkbox"/> DL-976 - Update on West Nile Virus	1.0	Intermediate
<input type="checkbox"/> DL-979 - Papillomaviruses and Cervical Cancer	2.0	Intermediate
<input type="checkbox"/> DL-980 - What You Always Wanted to Know About <i>E. coli</i> O157:H7 Infection	3.0	Intermediate
<input type="checkbox"/> DL-982 - Chlamydiae and Their Role in Human Disease	2.0	Intermediate
<input type="checkbox"/> DL-983 - Prion Diseases	1.0	Intermediate
<input type="checkbox"/> DL-984 - Cost Effective Clinical Microbiology	3.0	Intermediate
DL-985 - Hematology Case Studies: Platelets – available on website only	1.0	Intermediate
<input type="checkbox"/> DL-986 - <i>Candida</i> and its Role in Opportunistic Mycoses	2.0	Intermediate
<input type="checkbox"/> DL-987 - An Update on Autoimmune Diseases	1.0	Basic
<input type="checkbox"/> DL-988 - The Great Imposter	2.0	Intermediate
DL-989 - Neutrophilia – available on website only	1.0	Basic
<input type="checkbox"/> DL-990 - <i>CLOSTRIDIUM DIFFICILE</i> 027: The Recent Emergence of a New Strain	3.0	Intermediate
<input type="checkbox"/> DL-992 - Organ Specific Autoimmune Diseases	1.0	Intermediate
<input type="checkbox"/> DL-993 - Coccidioidomycosis (Valley Fever):A Reemerging Mycosis	2.0	Intermediate
<input type="checkbox"/> DL-994 - <i>Campylobacter jejuni</i> – Foodborne Gastroenteritis	3.0	Intermediate
<input type="checkbox"/> DL-995 - Hemolytic Disease of the Newborn	1.0	Basic
<input type="checkbox"/> DL-996 - Norovirus:Travelers' Diarrhea and Much More	2.0	Intermediate
<input type="checkbox"/> DL-997 - What's Going on with Whooping Cough (Pertussis)?	3.0	Intermediate
<input type="checkbox"/> DL-998 - Neonatal Alloimmune Thrombocytopenia	1.0	Intermediate
<input type="checkbox"/> DL-999 - Vitamin D	2.0	Intermediate
<input type="checkbox"/> DL-001 - Hantavirus – A Special Pathogen	2.0	Intermediate
<input type="checkbox"/> DL-002 - Potential Problems with the Diagnosis of Malaria in the United States; Lab ID of Malaria	2.0	Intermediate
<input type="checkbox"/> DL-003 - Update on <i>Salmonella</i> Foodborne Gastroenteritis	3.0	Intermediate
<input type="checkbox"/> DL-004 - Viral Hepatitis: Causes, Diagnosis, and Treatment	2.0	Intermediate
<input type="checkbox"/> DL-005 – Q Fever, Diagnosis and Management	3.0	Intermediate
<input type="checkbox"/> DL-006 – Rare Antibody Causing Hemolytic Disease of the Fetus and Newborn	1.0	Intermediate
<input type="checkbox"/> DL-007 – GIARDIASIS	1.0	Basic
<input type="checkbox"/> DL-008 – CRYPTOSPORIDIOSIS	1.0	Basic
<input type="checkbox"/> DL-009 – Listeriosis:A Foodborne Disease	3.0	Intermediate
<input type="checkbox"/> DL-010 – MMWR Report of <i>Chlamydia</i> and <i>Neisseria</i>	2.0	Advanced
NEW <input type="checkbox"/> DL-011 – Measles—United States 2014	1.0	Basic

DISTANCE LEARNING ORDER FORM

MEMBERS: \$12 PER CE UNIT / NON-MEMBERS: \$15 PER CE UNIT

NAME: (PLEASE PRINT) _____

ADDRESS: _____

CITY: _____ STATE: _____ ZIP: _____

TELEPHONE: (HOME) _____ (WORK) _____

EMAIL: _____ CA DPH LICENSE/CERTIFICATE #: _____

AMOUNT PAYABLE TO CAMLT: \$ _____ METHOD OF PAYMENT: CHECK VISA MASTERCARD

CARD #: _____ EXPIRATION DATE: _____ 3-DIGIT SECURITY CODE: _____

SIGNATURE: (REQUIRED OF ALL REGISTRANTS) _____



California Association for Medical Laboratory Technology Membership Application

Personal Information:

Name _____

Check one: () Ms. | () Mrs. | () Mr. | () Dr.

Address _____

City _____ State _____ Zip _____

LFS License/Certificate # _____

Day Phone _____

Preferred Email address:

Check here to opt out of email list

Employment Information:

Employer _____

Address _____

City _____ State _____ Zip _____

Work Phone _____

CAMLT asks you to contribute to one or both of these worthwhile entities:

LAB-PAC

The CAMLT Political Action Committee helps your association advocate on behalf of you and your profession. Help support quality clinical laboratory medicine in the California legislative arena.

LAB-PAC contributions are NOT tax deductible.
You must be a U.S. citizen to donate.

Education and Research Foundation

Your tax deductible contribution supports scholarship programs, outreach efforts and students pursuing careers in the clinical laboratory sciences.

Separate checks should be enclosed for each of these worthy causes.

Membership Categories:

Active - \$120 annually

An individual who 1) Holds a license or certification in a clinical laboratory profession issued by the California Department of Public Health or 2) Holds a baccalaureate degree from an accredited college or university and is eligible to sit for a CDPH approved examination; or 3) Holds a Masters or Doctorate degree in science, education or administration and is actively employed in clinical laboratory science.

Collaborative – \$65 annually

An optional special non-voting, non-office holding membership category open to licensed Medical Laboratory Technicians or Certified Phlebotomy Technicians, who desire to support the association. All other membership benefits are afforded. These members are also eligible to apply for active membership if they desire to vote and/or hold office in the association.

Associate - \$75 annually

An individual who has an interest in the field of clinical laboratory science and/or supporting the purposes or goals of CAMLT, but is not otherwise eligible for membership.

Student - \$10 annually

An individual who possesses a valid training license from Laboratory Field Services or who is enrolled in an LFS approved program leading to licensing as a CLS, or MLT or certification as a CPT. Students at accredited universities or colleges that lead to eligibility for licensure or certification from LFS are also eligible to join as student members.

Lifetime - \$1250 one time fee

Meets Active member requirements and submits the one time application fee.

20/20 Option - Additional \$20 annually

An additional \$20 payment at the time of application or renewal entitles the member a 20% discount on CAMLT state sponsored C.E. fees for the year (not applicable to Distance Learning).

Membership Dues _____

20/20 Option _____

Total payable to CAMLT _____

LAB-PAC Contribution (separate check) _____

E & R Foundation Donation (separate check) _____

Applicants are considered for membership in the category which meets their maximum qualifications.

I declare that in making application for membership, I have met the qualifications listed for the category to which I am applying.

Applicant Signature _____

Recruiter (if known) _____

AUTOMATIC RENEWAL AVAILABLE! You now have a convenient new option to pay your CAMLT membership dues!

Automatic renewal: Credit card listed will be charged on the renewal date each year for the same member category. Notice of renewal will be sent fifteen (15) days before the charge is entered to allow for changes in member category or updates to credit card information.

Sign here to enroll for the automatic renewal option: _____ Date: _____

Checks to: CAMLT, LAB-PAC and/or E & R as appropriate – OR -

Credit Card Payment: Visa Master Card

Card# _____ Exp. _____

Three-digit security code (on back of credit card): _____

Date _____ Signature _____

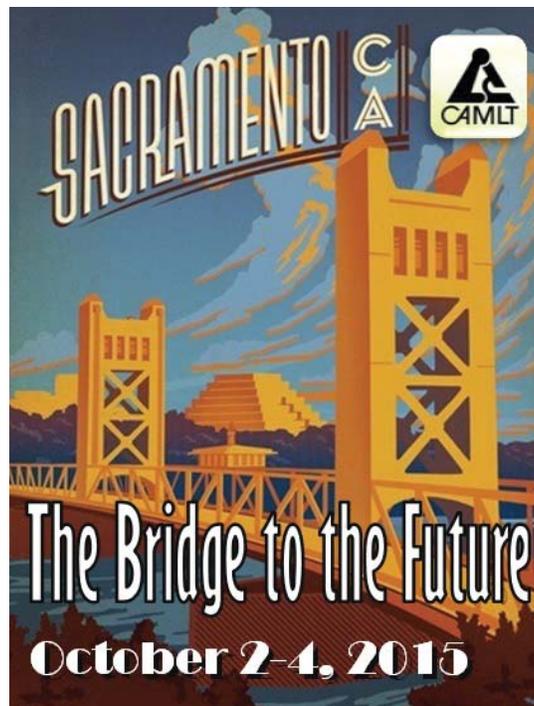
CAMLT will be moving soon. In the interim, please mail communications to:
CAMLT, PO Box 1814, Fremont, CA 94538 / or scan/email to:
office@camlt.org
Fax to: 510-792-3045 Voice Phone: 510-792-4441

2014 CONTINUING EDUCATION CALENDAR

Program planning in progress

Watch www.camlt.org/calendar for details

January 30-31	San Luis Obispo to Santa Barbara Chapter Seminar Sierra Vista Hospital, San Luis Obispo
February 21-22	Sacramento Valley Chapter Seminar UC Davis School of Medicine, Sacramento
February 28, March 1	Tulare/Kings Chapter Seminar Visalia
March 7-8	Fresno Chapter Seminar Fresno
March 21-22	Winter Seminar South Kaiser Permanente Regional Medical Center, North Hollywood
March 28	Eastland and Foothill Chapters Spring Symposium City of Hope, Duarte
April 18-19	Spring Seminar North John Muir Health Medical Center, Concord
October 2-4	76 th Annual Meeting, Exhibits & Workshops Embassy Suites Sacramento – Riverfront Promenade



WANT MORE INFORMATION? CONTACT:

TEL: 510/792-4441

FAX: 510/792-3045

WEBSITE: WWW.CAML.T.ORG

CAML T EXECUTIVE OFFICE

PO Box 1814

FREMONT, CA 94538