

NEWSLINKS

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President's Message

John Ko



Greetings ASCLS-Michigan members.

I am excited for the opportunity to serve as the 2020-2021 ASCLS-Michigan President.

First, thank you to all of you who continue to represent the laboratory profession during these unprecedented times. Your hard work and perseverance do not go unnoticed.

As we begin this new year, my goal is to continue to build a strong organization by focusing on three areas: the Board, Outreach and Membership, and the Conference. A strong organization is achievable with continued membership support and commitment – after all, ASCLS-Michigan is about community.

We experienced many firsts this past year:

- The first Virtual Joint Annual Meeting
- The first Virtual House of Delegates
- And the first ASCLS-MI awards ceremony and picnic

And, despite several missed opportunities and cancelations, our community still grows. This year, we are welcoming several first-time Board members and new committee members. The Leadership Development Committee continues to work diligently on providing position mentorship and we continue see more interest in volunteer opportunities through our social media presence on Facebook and the ASCLS Member Connect Community. As always, the Conference Committee is focused on providing a quality CE event to our members.

In a recent ASCLS Today article, Beth Warning, Region IV Director, shared how her ASCLS family continues to grow with opportunity to serve. I have a similar story. I first joined ASCLS-Michigan as a student. At the encouragement of other members, I became actively involved on Board of Directors as a District Representative. I began to build my community.

In 2017, I organized a CE event at the Detroit Zoo which brought about 30 members and their families together. This was an unforgettable moment in my time with ASCLS-Michigan (pictured below).

Now, I encourage you to build your community – to be the face of the profession and **#LiveLoveLab #ASCLS**



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Q&A - ASCLS PRESIDENT-ELECT HASSAN AZIZ

Q. There is much to be learned from the COVID-19 pandemic, and ASCLS is in a unique position to teach flexibility and resiliency to members who may be just starting in the profession, reinventing their career paths, or utilizing their expertise to help reimagine the delivery of patient care. How will you lead and support all ASCLS members through the significant changes and uncertainty laboratory professionals will continue to encounter during this rapidly evolving crisis?



A. Every generation has faced its share of challenges, and there is no doubt that these are challenging times for our profession, our Society, and our country. The world is experiencing a pandemic, a significant financial crisis, and levels of uncertainty most of us have never experienced. The setbacks we are facing today may take months or years to recover from

A crisis typically plays out over three timeframes:

- Respond, in which we manage continuity of operations and deal with the present situation.
- Recover, where we learn and emerge stronger.
- Thrive, where we prepare for and shape the "next normal."

A leader has the substantial responsibility to nimbly consider all three timeframes concurrently and allocate resources accordingly. Within the framework of these broad frames, I plan to take tactical steps to elevate these qualities during the current crisis, to blunt its impact, and to help the Society emerge stronger. With the right approach, we can turn this crisis into an opportunity to move us forward and create even more value and positive impact, rather than just bounce back to the status quo.

"While leading the Society, my philosophy will be to discern how the changes we are experiencing can be harnessed to yield meaningful results for all members of the Society."

Read more at https://ascls.org/communication/ascls-today/348-ascls-today-volume-34-number-6/717-one-question-for-ascls-president-elect-hassan-aziz



ASCLS-Michigan *Newslinks*

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Preventing Pseudohyperkalemia due to Leukocytosis or Thrombophilia

Paul Guthrie, Scientific Assembly, Editor

Pseudohyperkalemia (PHK) is the false elevation of serum potassium (K+). The causes of PHK include: Leaving tourniquet on for more than 1 minute, excessive fist clenching, arm in upward position, carry over of potassium containing anticoagulants when tubes are not filled in the correct order of draw, drawing above an IV site, difficult/traumatic draw, use of small gauge needles, syringe/catheter draws, forced transfer of blood from syringe into evacuated tubes, unpadded transport of samples in pneumatic tube systems, vigorous mixing of tubes, delays in processing sample beyond 2 hours, chilling of whole blood beyond 2 hours before centrifugation and certain patient conditions. ¹

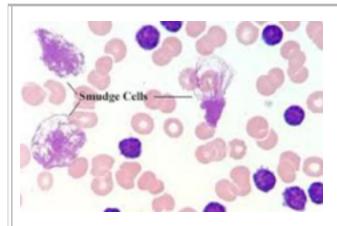
Many of the aforementioned causes introduce hemolysis, the rupture of red blood cells. At many laboratories, all serum and plasma samples tested for potassium have a direct measurement of the level of hemolysis. That "serum index" allows for evaluation of the potassium (K+) result. Some labs may, in the case of mild hemolysis, enter a comment indicating how the results are affected. Samples with severe hemolysis are typically rejected and redrawn,

Some of the causes for PHK do not cause hemolysis. These are more difficult to detect. There are clues for several of these. For instance if a sample was collected in an off site setting, and the cells were not separated for many hours, you could see a low glucose and high K+. Or, if the order of draw was not correct in filling the tubes and EDTA was filled first, you would see a very low calcium and a very high K+. However, false increases in K+ can occur even when all collection, processing and testing steps are performed correctly. The following describes a patient condition that leads to PHK.

Infrequently at the laboratory I work at, we have received Patient Safety Reports like this:

- **Situation:** The patient received unnecessary treatment due to falsely increased potassium results.
- **Background:** The patient was admitted and had three critically high potassium draws in a row. The patient was treated to lower the potassium. A repeat lab we drew came back normal. The patient may not have needed to be treated.
- Assessment: The patient continued to have very high potassium labs drawn by phlebotomy that were incorrect. We continued to assess the patient who was placed on telemetry as a result of the incorrect labs.
- **Recommendation:** Check with the phlebotomists to see if there was a technique issue causing the samples to hemolyze. Check the lab equipment to see if there was an issue with the results it produced.

It should be noted that a false increase in potassium will not always result in a critically high potassium as in this example. It is even possible for a critically low potassium to be "masked" by the false increase. In this case, the laboratory investigation ruled out phlebotomy technique and laboratory equipment issues as the cause of PHK. Rather, the problem was the patient's white blood cells. An elevated WBC (typically over $50 \times 10^9/L$) can falsely raise the serum or plasma potassium, particularly in conditions such as chronic lymphocytic leukemia (CLL). Studies have shown the false increase from CLL averages 1 mmol/L K+ per 100 x 10⁹/L WBC count. ² In CLL, the WBCs are fragile, and easily lysed to release their intracellular contents, which contain K+. Unlike the lysis of red blood cells, this increase in potassium cannot be measured by a serum index, or grossly observed. Under the microscope however, these cells may be seen as broken "smudge" cells as shown below.



The routine testing process for K+ includes several steps which can lyse fragile WBCs. These include: transfer of the blood into a vacuum tube, potential rough handling during transport in an unpadded pneumatic tube system, and centrifugation to separate the cells from the plasma or serum required for testing by most chemistry analyzers. However, if one knows that the WBC count is significantly elevated with a condition like CLL, there is a way to obtain a more accurate K+ value for these patients. If the sample is collected directly into a heparinized blood gas syringe, carefully transported to the laboratory, and tested on a whole blood analyzer (typically a blood gas machine), the results will be more accurate. In one example, a patient had plasma potassium values as high as 9.9 mmol/L when collected and processed via the routine protocol. When the sample was collected and tested as whole blood, the value was 3.2 mmol/L.

A similar cause for PHK is thrombocytopenia. When a sample clots, the platelets (PLT) release potassium. In cases where the PLT is >750 x 10^9 /L this may lead to a noticeable increase in potassium. The increase is approximately 0.1 mmol/L K+ per each 200 x 10 10^9 /L platelet count-2 The collection of a sample in heparin will reduce this impact, as the clotting process is inhibited.

With careful review of the complete diagnostic picture, a lab can typically identify this cause for a patient's falsely elevated potassium value. For such patients, special handling has to be performed for their subsequent samples. It should be noted that in a high volume laboratory with pre-analytical automation, it takes special and extra effort to divert samples from the routine workflow.

It's possible in a lab where the same technologist does the CBC and the chemistry, they would recognize the connection between a very high WBC count on a CLL patient and a very high K+.

Our challenge is to detect future instances of PHK on any patients and inform clinicians of that

possibility at the time of the initial test reporting. Being able to do this should help prevent unnecessary treatment, including critical value phone calls that lead to middle of the night emergency room visits to recheck the "critical" potassium levels.

In the laboratory where I work, we are in the process of implementing a plan to alert laboratory staff clinicians of these situations. To make that happen, the following changes are being made:

- The potassium analyzer LIS interface has been programmed to search for the WBC count. If the WBC is >50 x 10⁹/L the following comment will be attached. "Potassium value in serum or plasma may be falsely elevated due to high WBC count. Suggest ordering whole blood potassium and submitting sample in blood gas syringe."
- The potassium analyzer interface has been programmed to search for the Platelet count. If that is >750 x10⁹/L, the laboratory technologist will be alerted to see if sample is serum or plasma. If plasma, the K+ will be reported. If serum, the following comment will be attached. "Potassium value in serum may be falsely elevated due to high platelet count. Suggest ordering whole blood potassium and submitting sample in blood gas syringe."
- A new orderable test is being created for whole blood potassium in our Hospital Information System. This test has instructions to collect the sample in a heparinized blood gas syringe. When those samples are received in the laboratory, they bypass the pre-analytical automation line and chemistry analyzer. Instead they are delivered to the blood gas analyzers for testing as whole blood.

We are hopeful these changes will help us to better identify one of the many causes of PHK.

References:

- 1. BD Vacutainer Systems, LabNotes, Volume 13, No 3. Summer 2003.
- 2. Establishing evidence-based thresholds and laboratory practices to reduce inappropriate treatment of pseudohyperkalemia, Clin Biochem, 2017 Aug; 50(12):663-669, Ranjitkar, et. al.



ASCLS-Michigan 2020 Awards

Stephanie K. Mabry





Stephanie at Awards Picnic

While we were all saddened at our inability to hold a conference this year in light of the COVID-19 pandemic, ASCLS-Michigan was excited to hold the first ever ASCLS-Michigan Membership Meeting and Awards Picnic! This event, which was free for all members and their families, was held at Lake Lansing Park South on Sunday, August 23, 2020, and it was there that the following much-deserving awardees were recognized for their efforts!

Undergraduate Clinical Poster

Rachel Siddall was awarded 1st place for her poster Cefiderocol Susceptibility in Gram Negative Organisms. We will be inviting Rachel to present this poster at a future event.

Developing Professional Travel Award

This award recognizes Juniors or Seniors in an MLS program, or MLT students, who are ASCLS-Michigan members in good standing, who register for and attend the ASCLS-Michigan Annual Conference. While this year's meeting was cancelled, ASCLS-Michigan did not want this student's efforts to go unnoticed, and a voucher for future meeting registration was awarded. This year's Travel Award winner is **Joanne Guan**. An excerpt from Joanne's nomination letter reads: "She has and continues to demonstrate hard-work, teamwork, and compassion for others. Joanne is a leader to her fellow classmates and a mentor to the junior class."

Martha Roulund Membership Award

Established in honor of former ASCLS-Michigan Executive Secretary Martha Roulund in 2003, this award provides a voucher for Ascending Professional dues to deserving Developing Professional Members. This year there are two awardees.

The first is **Dara Garvin**. An excerpt from Dara's nomination letter reads: "Dara is a one of a kind student, exhibiting maturity beyond her years and displaying the purest passion for the profession of Medical Laboratory Science. ... She has garnered the respect of her peers and the MLS faculty as she upholds high standards for herself and repeatedly displays a commitment to excellence."

The second awardee is **Alaina Nido**. An excerpt from Alaina's nomination letter reads: "Alaina is a dedicated and eager learner; she is an active participant in class, always has a smile on her face, and asks "smart" questions which demonstrate her desire to have a full understanding of the content and the role she will play in patient care as a laboratory professional. ... I am certain her high level of desire for quality in her work will make her a superb laboratorian and an asset to the field of medical laboratory science and to the patients she will serve."

Joseph Miller Memorial Award

Established in honor of a vendor who passed away following an ASCLS-Michigan Annual Conference, this award recognizes an outstanding medical laboratory science student who will complete their clinical internship in the calendar year in which the award is presented. This year's awardee is **Sydney Sass**. An excerpt from Sydney's nomination letter reads: "Not only is Sydney incredibly intelligent, she possesses excellent interpersonal skills that allow her to work effectively in the classroom, laboratory setting and within the community. ... Her kindness and caring attitude show through her interactions with classmates and with the patients she encounters in the health care setting."

Keys to the Future

This award recognizes and rewards ASCLS members who have demonstrated their leadership potential to the organization by directing at least one task force or project, chairing a committee with significant tasks, or performing exceptionally as a constituent society Board member. This year we have 3 awardees: Caitlyn Crone, Billie Ketelsen, and Romy Selzer.



Romy Selzer (L) and Caitlyn Crone (R)

Caitlyn Crone served this past year as a District 3 Director and Chair of the newly formed Special Projects Committee. She happily assists where and when needed, and she will be joining the 2020/21 BOD as the Membership Development Committee Chair.

Billie Ketelsen recently graduated the ASCLS Leadership Academy. She served ASCLS-Michigan this past year as the Immunohematology Scientific Assembly Chair, and will join the 2020/21 BOD using her experiences with the national patient safety committee to Chair the newly formed ASCLS-Michigan Patient Safety Committee, in addition to being elected to a District 3 Director position.

Romy Selzer is also a recent graduate of the ASCLS Leadership Academy. She has skillfully served the Board this past year as Finance Chair, and has participated for a number of years in assisting the Conference Team with the planning of the Annual

Conference. She has also participating on the PACE committee at the national level. Romy will return to the ASCLS-MI BOD as Finance Chair for a second year in her term, and she is part of a task force looking into assuring proper checks and balances on our reimbursement processes.

All three of these of individuals have represented Michigan at the national level as a delegate to one or more Annual Meetings, and they also have in common a refreshing, infectious passion for ASCLS, the field of medical laboratory science, and the patients we serve.

Omicron Sigma

First awarded in 1977, Omicron Sigma is the ASCLS President's Honor Roll for Outstanding Service, recognizing those who have gone above and beyond in their dedication of time, energy, or resources in carrying out the duties of their position. Recognition is at three levels: national, regional, and constituent society. National and Regional recipients were recognized at the Region IV Caucus as part of the Joint Annual Meeting. The ASCLS-Michigan recipients for 2019-2020 are **Kyle McCafferty**, **Allison Young**, **Rachel Schaeferle**, **Carey Loveland**, **Ninive Costa**, **Meighan Sharp**, **Dan deRegnier**, **Andrea Hickey**, **and Kristina Martin**.

Pam Agren Inspiration Award

Established in honor of dedicated member Pam Agren in 1999, this award recognizes an individual who is actively involved in behind the scenes activities for the society. This year's awardee is **Kay Castillo.** An excerpt from Kay's nomination letter reads: "For the past number of years, Kay has served as the Poster Chair for the ASCLS-Michigan Annual Conference. This position requires not only soliciting poster presenters, evaluating eligibility, and coordinating the presenting logistics, but it requires her to identify poster judges, disseminate judging criteria, and tabulate scores upon conclusion of the presentations to identify winners and print certificates. This all take a great amount of time on Kay's part, but her success in doing so is evidenced not in her own recognition, but by the wonderful student posters we get to enjoy at our Annual Conference. The position of Poster Chair is not an easy one, and it is a position that many on the Board who are not in education may find easy to overlook, but it is a crucial mechanism by which many students get their first glimpse of ASCLS-Michigan. Kay has coordinated this activity successfully for so long that it may be easy to take her efforts for granted, but this activity would not be possible without Kay's tireless efforts to coordinate all aspects from applications to judging to recognizing the poster winners, and I thoroughly believe Kay deserves special recognition for these efforts."

Donna Duberg Mentorship Award

Established in honor of passionate educator Donna Duberg in 1990, this award recognizes an individual who has exhibited outstanding abilities to enlighten and mentor others in the professional Society. This year's awardee is **Kristina Martin**. An excerpt from Kristina's nomination letter reads: "Kristina's mentorship abilities are first and foremost evidenced by the great number of individuals she has encouraged to become involved and stay involved with ASCLS-Michigan. She is always recognizing opportunities within ASCLS where people can become involved, whether it be in a scientific assembly, as a speaker at a state conference, or in a committee chair or member role. Kristina always encourages individuals to take advantage of the professional development activities ASCLS offers as part of their career advancement, and works to enable their success when doing so. Kristina is also a mentor to the Board members of ASCLS-Michigan, most recently in her position as Leadership Development Chair. She has worked tirelessly on a years-long Handbook revision process to ensure our organization's leaders have the most up-to-date information and resources available to them in carrying out their roles. She has also worked on a project to reorganize the Awards Committee and Conference Committee structures, to better enable position mentorship and viable succession planning within those committees."

Presidential Recognition Honor

This honor is bestowed to individuals who have greatly assisted the President during their tenure. This year there are three recipients: **Andrea Hickey, Carey Loveland, and Kristina Martin**.

Andrea Hickey (pictured at right with Stephanie Mabry) was an invaluable mentor in planning the Annual Conference, and then in cancelling the Annual Conference. Her deep knowledge of ASCLS and ASCLS-Michigan were especially helpful in navigating the unique challenges the COVID pandemic presented to our organization.

Carey Loveland (not pictured) also possess a deep knowledge of ASCLS and ASCLS-Michigan. Her expertise has been greatly appreciated in planning BOD meetings, both in person and



virtually. In her role as Executive Secretary, Carey dedicates more time than anyone to ASCLS-Michigan, and she dedicated even more so to develop new forms, ballots, and voting processes for Developing Professionals and JAM delegates in response to the Conference cancellation.

Kristina Martin, (pictured at left) also recognized for her mentorship ability to all on the Board, has been a steady source of guidance and knowledge for me as I navigated the various responsibilities and challenges of the ASCLS-Michigan Presidency.

I cannot thank these three women enough for their support of me, and of the organization's goals during this unusual year.

Member of the Year

This award recognizes an individual who has been active in professional, civic, and non-professional activities. This year's awardee is **Kristin Landis-Piwowar**. Kristin's nomination letter reads:

"Dear ASCLS-Michigan Awards Committee,

It is my great pleasure to nominate Kristin Landis-Piwowar for the 2020 ASCLS-Michigan Member of the Year Award. Kristin has been a great asset to ASCLS, ASCLS-Michigan, and the medical laboratory profession as a whole for a multitude of reasons, some of which are outlined below:



- 1. She has served on the ASCLS-Michigan BOD in a variety of ways. This current year she has filled the positions of both Scientific Assembly Coordinator and Nominations Committee Chair-Elect. In her role as Scientific Assembly Coordinator, she has organized and solicited academic articles for Newslinks and provided speaker suggestions for the Annual Conference. It is important to note that Kristin herself is a frequent, engaging, and high-rated speaker at our Annual Conference. In her capacity as Nominations Chair-Elect, a too-oft under recognized committee, she has organized conference calls to discuss the nominations process, reached out to potential nominees, and worked to engage new members in ASCLS-Michigan. Finally, she has also been a contributing member of a years-long Handbook revision process, which culminated in the newly available online handbook made accessible on the ASCLS-Michigan website earlier this year.
- 2. She has served ASCLS at the national level, including as the Vice Chair of the Hematology Scientific Assembly and as a member of the Continuing Education Advisory Committee. She currently serves as the FOCUS editor for the CLS Journal, which is a valuable method by which laboratory professionals can earn high quality continuing education in the profession. This role, predominantly behind-the-scenes, is a large undertaking and requires a great amount of expertise, dedication, and time to ASCLS.
- 3. She is a dedicated and respected laboratory educator, and her students all speak of her with high regard. She is credited with over 25 professional presentations and over 30 professional publications, and was also Lead Editor of the 4th Edition of Clinical Laboratory Hematology. She played an integral role in developing the laboratory experience component of the Oakland University (OU) Health Professions Summer Camp, organizing high school laboratory experience camps, shaping the OU Healthology Symposium, and forming an Explorations in Collaborative Leadership and Inter professional Education (ECLIPSE) program at OU. She has also contributed her scientific and educational expertise as a Board member for Oakland Schools Technical Campus and as a judge for various STEM-related events. In fact, she was recognized by Crain's Detroit Business as a 2019 Notable Woman in STEM for her contributions to the academic and STEM communities in Metro Detroit.

There should be no question that Kristin Landis-Piwowar is a qualified nominee for this great honor, and ASCLS-Michigan has previously recognized her service to both the profession and to young professionals, having bestowed upon her the 2012 Key to the Future Award and the 2015 Donna Duberg Mentorship Award. She also a regular recipient of the Omicron Sigma Award at various levels, and she is a previous recipient of the ASCLS Voices Under 40 Award. It is with strong conviction that I now urge the ASCLS-Michigan Awards Committee to once again recognize Kristin, with the 2020 ASCLS-Michigan Member of the Year Award."

Lifetime Achievement

This award is the highest honor ASCLS-Michigan bestows. It is awarded to an individual with over 20 years of experience in the profession or in the Society advancing, promoting, and improving the profession. This year's awardee is **Carey Loveland**. Carey's nomination letter reads:

"Dear ASCLS-Michigan Board of Directors,

It is with great pleasure that we submit the nomination of Carey Loveland for the ASCLS-Michigan Lifetime Achievement Award.

Carey has been an active and dedicated member of ASMT/ASCLS for over 30 years. She has provided innumerable services to ASCLS, primarily at the state level. Highlights include Past-President of the Michigan society, member of the state Annual Conference Committee for over 20 years, and most notably, Executive Secretary for the past 18 years. She single-handedly rewrote the Handbook for our state society, and has since coordinated a substantial years-long Handbook revision. Although not an educator, she has chaired or participated in the administration of the Mock Exam competition for students for over 10 years, demonstrating her dedication to our Developing Professionals. She "hosts" the Board of Directors meetings at her place of employment for 3 of the 4 meetings every year, and she has provided her home or coordinated reservation of an alternate location for the past number of Audit Committee meetings. Most recently, in



addition to her capacity as ASCLS-Michigan Executive Secretary, Handbook Chair, and Audit Committee Member, she has also participated on the Bylaws Committee at the National level.

Carey is a passionate advocate for the profession, and has received nearly every award that ASCLS-Michigan bestows. She has previously been recognized for her dedicated and outstanding contributions to the profession through membership in the Alpha Mu Tau Fraternity. She has been an invaluable resource for every ASCLS-Michigan president for the past 20 years, as evidenced by her numerous Presidential Recognition Honors. As a former and current President, we can truthfully say we could not have done it without the guidance and mentorship of Carey. Carey Loveland has been the heart and soul of the ASCLS-Michigan family for many, many years, and she is truly deserving of recognition by the ASCLS-Michigan Board of Directors.

Carey is a person who always does more than is asked, and does so with good humor and a ready smile. She is a dedicated and conscientious professional, and is admired and respected by everyone who has been involved with the ASCLS-Michigan Board of Directors for the past three decades. Her collegiality is demonstrated by the fact that she was instrumental as an Ad Hoc Committee Member in establishing the Lifetime Achievement Award to recognize her peers, and we now enthusiastically and wholeheartedly request that ASCLS-Michigan recognize Carey Loveland with that Lifetime Achievement Award."

American Society for Clinical Laboratory Science



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