

**The Annual Election of SAS Officer and Governing Board
Delegates will be held electronically from
June 21-July 23, 2021.**

**All members in good standing are eligible to vote and
will receive an email with voting instructions and login
information from our online election provider Elections
Online. Please check your spam folders for this email. If
you do not receive it by opening day of the election
contact the SAS office at
sasadmin@s-a-s.org or 301-694-8122.**

**The following are the election profiles for each
candidate for your review.**

SAS Candidate Profiles 2021

Officers



**President-Elect
Peter Larkin**

Biography

Peter Larkin's professional career has focused on industrial vibrational spectroscopy. He received his Ph.D. from the University of Pittsburgh in 1990 from Sanford Asher employing resonance Raman and vibrational circular dichroism to study heme proteins. He currently manages the spectroscopy, thermal analysis and chromatography analytical groups for Solvay Research & Innovation in Stamford, CT and has worked in analytical departments in both the specialty chemical and pharmaceutical industries for over thirty years.

Early in his professional career Peter received comprehensive training in IR interpretation of a wide variety of structural problems in organic and polymer chemistry from Dr. Norman B. Colthup. He has published and presented extensively on various aspects of infrared and Raman spectroscopy and his book, entitled IR and Raman Spectroscopy: Principles and Spectral Interpretation, second edition (Elsevier) was published in November 2017.

Peter has been a long time member of both the Society of Applied Spectroscopy (SAS) and the Coblenz Society. He has served on the Megger's Award committee (2012-2013, Chair 2013), Lester Strock Award committee (2016-2017, Chair 2017), the William Wright Award committee (2019-2021, Chair 2020), the Coblenz Society board of managers (2019-present), as a delegate at the SAS governing board (New England section representative 2019, 2020 and 2021) and as a secretary for the New England SAS section (2020-present).

Why should you be elected?

My professional experiences include:

- Corporate (analytical and project) management
- Quality management/continuous improvement
- Industrial applications of vibrational spectroscopy

- SAS committees and governance

My personal skill set and management philosophy incorporates developing systems to improve operational efficiency, open communication and transparency, accountability, building strong teams and recognizing the contributions and achievements of others. Where appropriate and advantageous, I will introduce quality management processes to improve the experience and benefits of SAS membership.

SAS presently has a number of important work streams headed by talented volunteers. This includes updating web design, social media communication, marketing as well as expanding/evolving journal options and content. I would continue to support and nurture these initiatives and identify new opportunities to add to the value proposition as a SAS member. In addition, I would assure that volunteer burnout is mitigated by putting in place systems for paid employees to continue the day to day work. We should also examine the lessons that COVID taught us in 2020 to better integrate developing digital tools to help us communicate and bond as a community.

Moving forward, we want to continue the transformation of SAS to deliver significant tangible value to our members. I believe if we communicate the personal and professional value of SAS membership we can improve its trajectory and strengthen the society as a whole. This will require an extensive outreach to existing and potential new members.

What is SAS doing well and why?

SAS provides an inclusive community for members to continuously improve spectroscopic expertise, develop meaningful professional relationships and form lifelong friendships. Some of the key activities that SAS has been doing particularly well include:

- Highly successful journal (Applied Spectroscopy)
- Flagship conference, SciX
- Core membership committed to SAS success
- Supportive of students and recent graduates
- Awards to recognize significant scientific contributions

Networking is a vital component of any society to bring value to its members and when in person, SciX provides an excellent venue. Networking opportunities include regional meetings, SciX and PittCon via scientific and social activities as well as volunteer service in various SAS committees. Unfortunately, this often is best accomplished with face-to-face meetings which has not been possible due to COVID-19. The renewed newsletter and the virtual local SAS and SciX conference meetings have been a valuable substitute. However, I and others are looking

forward to opening up to include a more opportunities to meet old friends and develop new ones in person.

What does SAS need to do better and how?

SAS membership is a value proposition for a wide variety of practicing spectroscopists in both academia and industry. We need to confirm that in our evolving environment we are focusing on efforts that are of greatest need to our existing and potential membership as well as effectively communicating the society services and growth opportunities that are available. These services should be readily available and easily accessed by our members. If we provide unique, valuable service and communicate through effective outreach to existing and potential new members we should realize membership growth which is critical for the long term health of SAS.

SAS and the wider spectroscopy field is influenced by meta-trend of the development of smaller, more cost effective and powerful spectroscopic systems that are now widely available to the more casual user. I believe this trend is part of the source of the decreased membership in SAS. We need to develop a strategy to help these users understand the value that we can bring to their professional careers.

A few tangible steps we can take include:

- Better understand what SAS members value and need. This will vary depending upon the demographic and will involve data mining.
- Identify unmet service opportunities.
- Leverage enabling technologies for improved communication

One issue I think SAS should consider is providing specific tools and programs to better support industrial spectroscopists. This should include both educational and mentoring for early and mid-career scientists. The adjustment from graduate school to a successful industrial spectroscopist is significant and this is an area that SAS could provide more member value. All too frequently in today's resource strapped business organizations entry level scientists are not provided support to succeed in their professional career. Putting in place an effective mentoring system and improved networking opportunities to help early career industrial spectroscopists could provide important support.

What initiatives do you hope to pursue?

There are quite a few of initiatives presently in active work streams with talented and dedicated volunteers that I would continue to support. This includes: branding, a second on-line journal, Plan S, digital communication (website and newsletter), expanding SAS presence internationally.

There are several areas that I would like us to focus on:

- Update digital tools and support to better support local sectional regional meeting participation. New enabling technology can better support virtual attendance.
- Use regular polling to better understand membership needs and concerns
- Improve opportunities to recognize significant achievements of industrial spectroscopists
- Identify a workable mentoring system for industrial spectroscopists.
- Outreach to include more general, casual spectroscopic users.

To achieve the above, I would start by evaluating what tasks are well suited for the existing SAS office and what items may need to be outsourced. Part of this process should include a prioritization of various initiatives and where needed assigning deadlines.

Why is SAS membership important?

SAS membership provides access to an exceptional pool of spectroscopic knowledge and expertise. This is most obviously available by attendance to conferences (SciX), regional meetings and the society journal, Applied Spectroscopy. The general culture of SAS is open, friendly and helpful. If asked, most long term members will use family to describe the SAS community.

Because of the above, SAS membership provides a valuable resource to grow as professionally as practicing spectroscopists. SAS membership provides members opportunities to interact and learn from world experts in spectroscopy, professional growth opportunities within the society and informal mentoring with colleagues. Active participation in SAS, helps strengthen our profession enabling each of us to pay it forward for the next generation.

What are the challenges facing SAS?

SAS membership comprises of molecular and atomic spectroscopists that vary in age from students and post docs to late career experienced scientists. This group encompasses academia, government labs and private industry (pharma, chemicals R&I/production and instrument companies). This is a very broad umbrella of diverse groups with very different needs which requires SAS to thoughtfully evaluate the value proposition for membership. The long term trend of decreasing membership is a key metric to evaluate how effective our response is to external challenges.

Some of the challenges that continue to face SAS include:

- Local SAS meeting participation (online and in person)
- Improve organization efficiencies and tools

- Adapting journal to changing publication environment (Plan S)
- Provide services valued by membership

How we as an organization best focus the SAS mission and outreach to meet member needs is important in moving forward to meet the future.

How do we meet these challenges?

Our focus should be to update our systems with well established management tools for both the executive committee and the SAS office. Where internal expertise is not available outsource to an accredited organization to meet critical needs.

Some of the areas to focus on include:

- Embrace digitalization in SAS organization. Optimize workflows, enable data mining and implement efficient management systems.
- Improve member services. Introduce various tools for communication with members. Prioritize education with focus on creative problem solving.
- Introduce a quality policy and quality objectives aligned with SAS executive committee goals with clearly defined targets, indicators, responsibilities and timing.
- Update project management systems to meet critical timelines for the programs of SAS including committees, conferences and other outside activities.

What new programs should SAS pursue?

New programs should clearly provide value to our existing as well as potential new members. Programs we should consider implementing include:

1. A formal mentoring program for industrial spectroscopists.
2. A second truly online journal that is more applied and aligned with challenges of Plan S.
3. Outreach to researchers that have not traditionally been members of SAS.



President-Elect Rajiv Soman

Biography

Rajiv Soman currently serves as Director, Purity Services, Materials Science Division at Eurofins EAG Laboratories, USA. He has over thirty years of professional experience in analytical chemistry and materials science. Rajiv has an earned doctorate in Analytical Chemistry from Northeastern University, Boston. He commenced his professional career as an Advanced Analytical Chemist in the Engineering Materials Technology Laboratories of GE Aircraft Engines. Prior to joining EAG Laboratories, Rajiv served as Professor (Full) of Chemical Engineering, Chemistry, and Chemical Technology in US, and was a faculty member for twenty years. Rajiv has received numerous awards for excellence in teaching.

Rajiv's research interests are in the areas of atomic and mass spectrometry, with emphasis on elemental analysis. He was a frequent invited guest scientist at Forschungszentrum Jülich, Germany, where he conducted research in elemental mass spectrometry. Rajiv has made numerous presentations at national and international conferences, co-authored publications in international journals, co-edited two TMS proceedings, and holds two United States Patents.

Rajiv's other interest is in chemical education, especially K-12 initiatives. He has conducted active learning workshops in *Instrumental Methods of Chemical Analysis* for high school students, to encourage them to pursue careers in STEM disciplines.

Rajiv is Member, Society for Applied Spectroscopy (SAS), and American Chemical Society (ACS) since 1986. He served as Chair, Cincinnati Local Section of SAS. At the national level, he has served as Member, Tour Speaker Committee, Chaired the Membership, and Local Section Affairs Committees, and was candidate for Secretary, SAS. He was an invited Panel Member for American Chemical Society's initiative, *Partnering to Prepare for the 2015 Technical Workforce*. He served as Registration Committee Chair, 32nd Central Regional Meeting of ACS, Cincinnati (2000). Rajiv is also a member of TMS, where he serves as Member, Materials Characterization Committee.

He founded, and managed international academic exchange programs with institutions in Germany, and Croatia. For more than two decades he has supported educational initiatives for underserved students in a rural village school in Maharashtra, India, by creating an endowed financial fund. He established (2010) new scholarship at his alma mater, SIES College of Arts and Science to recognize exceptional students in biochemistry.

Why should you be elected?

I joined SAS in 1986 at the encouragement of my graduate advisor. As I reflect on my 35 years of membership, and the opportunities, the value that Society has provided me is immeasurable.

I consider myself to be extremely fortunate to have had the opportunity to be trained in three continents. In each of the diverse global cultures, there was much that I learned. My professional career spans over thirty years, and it includes twenty years of service in academe, and more than ten years in industry. In each professional setting, when provided with opportunities, I led units on a path of growth, productivity, and sustainability.

I am a member of ACS, SAS, and TMS. In each of the professional societies, I have strived to give back to the mission in form of service. My SAS leadership positions include service as Chair, Cincinnati Local Section, Member, Tour Speaker Committee, Chair, Membership, Chair, Local Section Affairs Committees, and candidate for Secretary (2003). Serving as Chair (1998-2000) of then dormant Cincinnati local section, I assembled a team that engaged in value-added activities to galvanize the local section that resulted in receiving the William J. Poehlman Award. It has been an honor and a privilege to serve the Society.

I was an invited Panel Member for American Chemical Society's initiative, *Partnering to Prepare for the 2015 Technical Workforce* where we focused on workforce needs of industry. I served as Registration Committee Chair, 32nd Central Regional Meeting of ACS, Cincinnati (2000). My contributions to TMS (2018-present) include service as Member, Materials Characterization Committee, and as Chair, Student Poster Judging Committee.

The Society, although incorporated in 1960, has underpinnings that date back to 1945. Over the years, SAS has made great strides, the success of which is due to the selfless service of scientists, engineers, and entrepreneurs who were giants in their respective fields. Sustaining a vibrant Society is challenging. I believe that my several decades of diverse experiences, and proven record of success put me in a unique position to lead the Society. More important, I am passionate about the mission of the Society, and firmly believe that collectively, with the engagement of membership-at-large, we can leave a rich and healthy legacy for future generations of spectroscopists. It is an honor to be nominated, and if elected, I will put every ounce of energy to serve, and to advance the mission of Society.

What is SAS doing well and why?

As I reflect on the value that the Society has provided me as a member, the focal point continues to be the journal **Applied Spectroscopy**. This much valued resource has made great strides over the years, and much of that credit goes to the phenomenal contributions from the distinguished editors-in-chief, and their respective editorial teams. The journal, established in 1951, continues to be one of the world's leading scientific journal, and since 2017 shows an improvement in the Impact Factor. SAS should continue to strengthen this publication with a goal of keeping the upward trajectory of Impact Factor and broadening the scope by including more manuscripts that are at the intersection of chemistry, biology, engineering, physics, and materials science.

The COVID-19 pandemic has nudged us all to think and conduct business differently. SAS has also seized on the opportunities. The increased business/industry-academe collaboratives are a step in the positive direction. One such activity was the online, two-day virtual professional development offering. I found the presentations from SAS members to be informative, of exceptional quality, and outstanding. SAS should continue to expand in this successful model of disseminating scientific information.

SAS has long provided leadership opportunities for students. Empowering students is extremely important for the sustainability of SAS. SAS should continue to expand on student representation in Committees, Governing Board, and SciX Planning Committees. The Office of Executive Director appears to be the glue that holds the mission of SAS.

COVID-19 pandemic has also increased offerings of webinars, and a shift toward online meetings. The NYSAS section, among others, have been particularly active in this area and have been successful in online local section meetings. While virtual meetings are not a substitute for in-person meetings for many reasons, it allows for SAS to continue its mission.

FACSS Conferences, as organized in past, were always much sought after, and successful. SciX Conference is becoming the premier platform for analytical chemistry and allied sciences, hosting annual meetings of several Societies. The growth in the number of Member Societies is also commendable.

The Office of Executive Director plays a critical role in coordinating the many activities undertaken by SAS as an organization. In my experience, it has been an essential, and a valuable one-stop resource Center.

What does SAS need to do better and how?

Society for Applied Spectroscopy, as a professional Society has challenges, and I suspect they are not different from those experienced by other professional Societies. In the age of increased time demands put on industry and academic professionals, shrinking budgets, and the recent COVID-19 pandemic makes the situation even more challenging, and complex. From my vantage point, recognizing that challenges often come with opportunities, I believe that SAS needs to do better in the following focus areas.

1. Improve recruitment efforts to gain new members, and to retain them for more than five years.
2. Improved visibility in scientific circles, academic institutions, including community colleges and high schools.
3. Capitalize on the fact that we are an increasingly global community.
4. Engage with students during their transition year from completion of formal education to start of their professional career.

5. Strengthen and reinforce the value of membership in this Professional Society.
6. Emphasize on innovation, and entrepreneurship, and craft activities in these areas.
7. Highlight efforts in Diversity and Inclusion.

What initiatives do you hope to pursue?

The challenges facing SAS do not appear to be new, and perhaps are similar to those experienced by other professional societies. Exceptional talent exists within our membership, and if elected, I plan to put together a team-centric, strategic plan, with measurable, achievable, and realistic goals (SMART Goals), to address the following key areas.

1. New Member recruitment and retention efforts.
2. Focus on avenues of revenue enhancements with a focus on sustainability.
3. Increase Academe-Business/Industry-Government-Community collaboratives.
4. Visibility in high schools - support, and promote STEM initiatives.
5. Update and enhance SAS Website.
6. Internationalization - consider joint memberships with professional societies across the globe.
 - a) Start with two/three countries;
 - b) Engage with educational institutions, and professional societies in emerging markets, and in Europe.

An earlier section of my submission document has addressed the **One SAS 2020 Vision** guidance document as a platform to build from. If elected, I will engage with membership-at-large to address the initiatives and that will also be aligned with the Constitution and By-Laws of the Society.

Why is SAS membership important?

SAS mission statement states *"...to advance and disseminate knowledge and information concerning the art and science of spectroscopy and other allied sciences, to advance the professional standing and growth of the Society and its members, to coordinate cooperative endeavors of its individual members and sections, and to promote and maintain a close bond among its members"*.

I became a member of SAS in 1986, at the encouragement of my graduate advisor, Professor Thomas R. Gilbert. Looking back over the years, I cannot help but agree that the mission

statement reflects how I as an individual have viewed membership. Personal experiences can, and do shape an individual's outlook toward an organization. In my case it is indeed true. As a new graduate student, I vividly remember the invite (1989) by Professor Barnes to make a presentation at the New England local Section's Awards Night - this was my first opportunity at making a presentation in front of distinguished audience, and fellow students. Over the years the Society provided opportunities for us student members, to meet, and learn from some of the pioneers in atomic, and molecular spectroscopies. Interacting with them remains an inspiring and a unique experience, that is etched in my memory to this day.

To summarize in few points, the following should be important as to why SAS membership is important.

1. Access to the flagship journal, **Applied Spectroscopy**.
2. Opportunities for networking.
3. Leadership Opportunities.
4. Opportunity for Service.
5. Opportunity for professional development.

What are the challenges facing SAS?

I envision three key, and immediate short-term challenges. The **One SAS 2020 Vision** guidance document lays the basis to expand in addressing challenges. While addressing short-term challenges, SAS should also engage in parallel, developing long-term strategies to ensure that the Society will continue to remain a robust platform for dissemination of scientific information, and increasing professional development opportunities for members.

1. Decline in new memberships, and retention of members.
2. Sustaining value-added activities within local sections.
3. How might we create a sustainable, futuristic revenue model, and yet retain and capitalize on existing expertise, and talent within the Society?

How do we meet these challenges?

The challenges listed in the previous question may appear to be daunting, yet, it is essential that the Society address them in unison. Every member will need to play a part if the Society is to succeed, and we must do all we can to engage and empower our membership to be part of teams that address each of the challenges. This could also be a leadership opportunity for students that they can be proud of.

Some approaches in meeting challenges have been listed in other sections of this document. It is important that we work together, incorporating institutional knowledge and experiences, coupled with enthusiastic, new ideas to result in new opportunities.

What new programs should SAS pursue?

Outlined below are some new/expanded programs that SAS should pursue. In principle, new programs should have realistic goals with a three to five-year plan, and with measurable

metrics that should be assessed on a semi-annual basis. Such efforts require commitment of resources, and collective engagement to yield results. The Society should also study best practices in other professional societies.

1. Member-get-a-member campaign (similar to the one by ACS), with a gift item for the member who gets a new member. Faculty members, and Supervisors can be particularly influential in communicating to the students the importance, and the benefits of "belonging" to a professional Society.
2. Expand offering rapid mock interviews, and networking events at Conferences where SAS has a presence.
3. Increase Corporate donors, and sponsors.
4. Expand international presence.

Governing Board Delegates



Karin Balss

Biography

Karin Maria Balss earned her Ph.D. in Chemistry from the University of Illinois Urbana-Champaign. She joined Cordis, a Johnson & Johnson medical device company as a rotational scholar in 2004, where she developed several spectroscopy-based methods to describe chemical and physical properties of the drug-eluting stent coating.

In 2013, she joined Janssen Pharmaceuticals as part of the Advanced Technologies, Technical Operations Group within the supply chain organization. The team provides data analytics, modeling, PAT, and manufacturing and investigation support within the pharmaceutical sector. Her team responsibilities include implementing spectroscopic PAT methods for unit operations in solids manufacturing, cleaning verification, and biopharmaceuticals. She currently leads the implementation of Raman in commercial scale production bioreactors for advanced process control and real time release.

Karin enjoys mentoring undergraduate and graduate students in her laboratory. Karin has co-authored 19 peer-reviewed publications and presented invited lectures at national and international conferences.

Why should you be elected?

The governing board delegates should have diverse representation. I represent the pharmaceutical sector and will provide perspective on adopting novel spectroscopic techniques in industry from technical and regulatory aspects. I can provide feedback to the SAS community on how the organization can best serve scientists working in the healthcare/pharmaceutical sector.

What is SAS doing well and why?

Through the awards that SAS sponsors, it does a great job of recognizing achievements across a broad spectrum (students, early career, industrial, etc.). It's also had a great record of organizing conferences.

What does SAS need to do better and how?

SAS needs to recognize our future lies with next generation and provide better outreach to get students and early career professionals involved in the society.

What initiatives do you hope to pursue?

Career development

Training

Why is SAS membership important?

It is important to have a network to share ideas and foster collaborations.

What are the challenges facing SAS?

SAS competes with larger trade organizations and other niche organization. The challenge is to maintain membership and engagement that offer tangible benefits to its members.

What new programs should SAS pursue?

SAS should consider more social media presence to reach new audiences. SAS should also consider enhancing employment bureaus and more opportunities during conferences for new graduates seeking employment.

**Praseon Diwaker****Biography**

Praseon Diwaker completed his undergraduate studies in mechanical engineering at the Indian Institute of Technology, Kanpur. After completing his undergraduate education, he moved to the University of Florida, Gainesville, for his M.S. and Ph.D. in the ME department under the

guidance of Dr. David Hahn. During his Ph.D., he worked on various projects including combustion and Laser-Induced Breakdown Spectroscopy (LIBS) and several other analytical techniques. His Ph.D. dissertation focused on understanding plasma-particle interactions with regards to understanding the fundamentals of LIBS for qualitative analysis of aerosols. After completing his Ph.D., Dr. Diwakar joined the National Institute for Occupational Safety and Health (NIOSH) as a National Research Council postdoc working on spectroscopy-based aerosol instrumentation development. Following that, he worked as a research associate at the Center for Materials under Extreme Environment (CMUXE) at Purdue University. At Purdue, his research focused on understanding the fundamentals of ultrafast laser ablation processes and their implications on various analytical techniques including LA-ICPMS and LIBS. Dr. Diwakar joined the ME department at SD Mines, South Dakota in Fall 2018 where he is teaching thermal science courses and conducting research in the field of laser diagnostics, spectroscopy, LIBS, cold plasma for biomedical applications, STEM Education, and other related research areas. Prasoorn has been involved with several academic and professional organizations including SAS, OSA, NASLIBS since his graduate student days and continues to be actively involved in these organizations.

Why should you be elected?

I have been involved with Society for Applied Spectroscopy since my graduate school days, first as a student member and then as a regular member. My involvement with SAS started as a student poster presenter at SAS poster sessions during FACSS (Now SCIX) and as participants at student events to SAS poster judges as I moved along in my career. In addition to that, I started volunteering in SAS Committees. Several of my students (Highschool undergraduate and graduate students) have participated in SAS events and activities and are members of the society and have won several awards. With the help of students, I was able to start a new chapter at Purdue University and within a year we conducted several events including a spectroscopy symposium.

My overall involvement listed above serves as a backdrop to justify why I should be elected as SAS governing board delegate. In summary here are a few of the reasons to justify why I should be elected:

1. My journey from student member to regular member provides me unique insight and experience of a typical SAS member as he/she progresses in his career and how SAS benefits one's professional development. This experience also brings in unique challenges faced by individuals in their career path and how SAS can help them.
2. My involvement with the SAS student chapter with members at various levels ranging from high school students to graduate students provides me knowledge and background as to challenges and opportunities faced by SAS student chapters. Involving students in SAS activities is key to the growth of SAS and I can bring some key insights as to how to achieve it.
3. Being part of SAS committees further helped me understand the processes and mechanism of SAS functioning which is critical to know so that I can contribute better and more effectively.

4. I have been involved with STEM outreach and diversity and inclusivity activities for which I was recognized by OSA. I will be interested to continue this task at SAS.

What is SAS doing well and why?

SAS is doing several things pretty well. Some of them are listed below:

1. SAS meetings and events are one of the most well-organized and engaging meetings/events comparing any other society and organization. The effort, passion, and experience of all the organizers, leaders and members get all the credit. This culture of well-organized events and meetings is very encouraging for new members as well as for recruiting new members.
2. SAS Publication- Applied spectroscopy continues to be one of the leading journals in the field of spectroscopy. Focal point articles have been a great initiative. The benefit of journal access to its members is one of the highlights of membership and SAS continues to excel in this regard.
3. SAS awards- recognition of its members at various levels is important and SAS awards are always a highlight of annual events. These awards are well organized starting from the nomination phase to selection to award event at SCIX. The awardees represent diverse SAS members.
4. SAS Newsletter/Spectroscopy Calendar- As a graduate student, I highly relied on the SAS spectroscopy calendar to identify various upcoming conferences and events in the coming years. The newsletter is a nice initiative to keep members engaged and informed.
5. SAS support to new student chapters- SAS leadership has been very encouraging to student chapters and the initial funds which are provided to new chapters is a welcome initiative.

What does SAS need to do better and how?

1. Retaining student members for the long term- SAS has been very good in signing up and recruiting new student members at the SCIX conference. However, there does not seem to be a very effective process to ensure that these student members continue to be SAS members while they are students as well as after graduation. This could be achieved by regular follow-up with new student members as their first year membership is about to expire. Informing the student members of the advantages of SAS membership, whether they continue to be in academics or join the industry, has to be fully explained to them. The introduction of the professional certificate program is a welcome initiative and its advantages to student members have to be advertised from time to time. SAS members who are faculty at various universities and academic institutions can play an important role in ensuring these student members retain their membership while they are students as well as after graduation.
2. Managing and communicating with student chapters and sections- SAS need to do a better job at communicating and keeping in touch with student chapters and sections. This also helps in recruiting and retaining new members for the long term. COVID pandemic forced us to use virtual platforms like zoom, Teams, gather.town for virtual meetings, conferences, etc. This also

helped to normalize virtual meetings and people are more comfortable now using these platforms. SAS needs to build upon these platforms so that we can have communication with various chapters using zoom, Teams, or gather.town to know their status and issues. Cross-chapter communication can also be achieved using these platforms.

3. Encouraging SAS members to publish in Applied Spectroscopy on regular basis- SAS needs to encourage its members to submit articles to Applied spectroscopy on regular basis. This will build up members' connection with the society over the long term.

What initiatives do you hope to pursue?

I would like to pursue the following issues as SAS Governing Body delegate:

1. Retain student members for the long term- As mentioned above, this is a critical issue without which the growth of society is not possible. Communication and proper information about SAS membership benefits/programs is the key to achieve student involvement in the long term. Involving SAS faculty members and sections/chapters in this process will be an important part of the solution.

2. Communication with SAS chapters/sections via virtual platforms including zoom, teams, gather.town. Having regular communication with chapters is important so that they are not left alone to deal with challenges and we can figure out the issues before the chapter/section goes defunct. Also, this will help in cross-chapter communications which will help in propagating ideas between chapters that worked and which did not work.

3. Mentor chapters for new chapters- I will also like to pursue the idea of having a mentor chapter/section for newer chapters/sections for a year or so. This will help in grooming new chapters and will enhance cross-chapter collaborations.

4. Webinar series/SAS incubator meetings- I would also like to pursue the idea of having regular webinar/tutorial series. In addition, I will also like to initiate a SAS incubator group idea where key upcoming concepts, techniques, challenges can be discussed virtually and can have once-a-year incubator group meetings either at SCIX or Pittcon. This will bring together expert researchers, academics, the industry as well as emerging researchers together for discussion. From one of these topics, the thematic Applied spectroscopy issue can also be targeted.

Why is SAS membership important?

SAS membership has always been very important for me since I was a graduate student. Some of the benefits of SAS membership include:

1. Networking- It helps build your professional network which is much needed as someone builds their career. SAS provides that platform.

2. Research dissemination- SCIX, PITTCON are great conferences supported by SAS where its members can present their research and attend other presentations. SAS membership provides

several programs at these conferences specifically tailored towards SAS members. In addition, discounted conference fees are always a benefit.

3. Applied spectroscopy journal- As a SAS member, access to the Applied spectroscopy journal is a great benefit to members at any level of their career. In addition to having access, SAS members can submit articles to Applied spectroscopy and gain visibility to their research.

4. Leadership opportunities via participation in SAS committees, chapter/section leadership

5. Grants/awards- SAS offers travel grants for undergraduate students as well as early career researcher grants which not only help its members financially but also help in getting recognized among your peers. Several other SAS awards which are given to SAS members at various levels of their careers celebrate the achievements of SAS members and are a great step forward in their professional journey.

What are the challenges facing SAS?

To the best of my knowledge and experience, I believe SAS is facing the following challenges:

1. Retaining student members for the long term- SAS has been very good in signing up and recruiting new student members at the SCIX conference. However, there does not seem to be a very effective process to ensure that these student members continue to be SAS members while they are students as well as after graduation.

2. Managing and communicating with student chapters and sections- SAS need to do a better job at communicating and keeping in touch with student chapters and sections. This also helps in recruiting and retaining new members for the long term. Cross-chapter communication is also lacking which if encouraged will help struggling chapters and sections.

3. Member participation in article submissions to Applied Spectroscopy- SAS needs to encourage its members to submit articles to Applied spectroscopy on regular basis. This will build up members' connection with the society over the long term.

4. More novel initiatives are needed to keep members engaged- SAS has several initiatives to keep members engaged however with changing times some more novel ways need to be included in the list of initiatives. With virtual meetings becoming the norm after the pandemic, SAS can use these platforms to have regular virtual meetings, mini virtual poster sessions, webinars, incubation group meetings, etc. to name a few.

How do we meet these challenges?

These are complex and complicated challenges that need long-term planning and vision as well as need multi-prong approach. Some of the ideas and suggestions are listed below:

1. Retaining student members for the long term- This could be achieved by regular follow-up with new student members as their first year membership is about to expire. Informing the students' members of the advantages of SAS membership, whether they continue to be in

academics or join the industry, has to be fully explained to them. The introduction of a professional certificate program is a welcome initiative and its advantages to student members have to be advertised from time to time. SAS members who are faculty at various academic institutions.

2. SAS needs to do a better job at communicating and keeping in touch with student chapters and sections. COVID pandemic forced us to use virtual platforms like zoom, Teams, gather.town for virtual meetings, conferences, etc. This also helped to normalize virtual meetings and people are more comfortable now using these platforms. SAS needs to build upon these platforms so that we can have communication with various chapters using zoom, Teams, or gather.town to know their status and issues. Cross-chapter communication can also be achieved using these platforms.

3. Encouraging SAS members to publish in Applied Spectroscopy on regular basis- SAS needs to encourage its members to submit articles to Applied spectroscopy on regular basis. This will build up members' connection with the society over the long term.

4. More novel initiatives are needed - Some novel ideas include having regular webinar/tutorial series. In addition, the SAS incubator group can be a novel idea where key upcoming concepts, techniques, challenges can be discussed virtually and can have once-a-year incubator group meetings either at SCIX or Pittcon. This will bring together expert researchers, academics, the industry as well as emerging researchers together for discussion.

What new programs should SAS pursue?

1. Webinar series/SAS incubator meetings- I would also like to pursue the idea of having regular webinar/tutorial series. In addition, I will also like to initiate a SAS incubator group idea where key upcoming concepts, techniques, challenges can be discussed virtually and can have once-a-year incubator group meetings either at SCIX or Pittcon. This will bring together expert researchers, academics, the industry as well as emerging researchers together for discussion. From one of these topics, the thematic Applied spectroscopy issue can also be targeted.

2. Virtual meetings/ symposia involving local chapters and sections- COVID pandemic forced us to use virtual platforms like zoom, Teams, gather.town for virtual meetings, conferences, etc. This also helped to normalize virtual meetings and people are more comfortable now using these platforms. SAS need to build upon these platforms to initiate small scale virtual meetings/symposia/poster presentation etc. involving local chapters to keep students involved and retain membership.

3. Mentor chapters for new chapters- SAS should also pursue the idea of having a mentor chapter/section for newer chapters/sections for a year or so. This will help in grooming new chapters and will enhance cross-chapter collaborations.

4. I will also like to suggest an award for outreach/inclusion/diversity champions. This will recognize our amazing SAS members who are working towards a more diverse, inclusive group of researchers and professionals in the field of spectroscopy.

5. Job/Resume Portal- It will be a great idea to start a portal where SAS members can upload their CV/resume. Also, any spectroscopy-based jobs/internships/opportunities can be curated and listed by employers. This will benefit SAS members significantly.



Brooke Kammrath

Biography

Brooke is a Professor of Forensic Science at the University of New Haven (Connecticut, USA) and the Assistant Director of the Henry C. Lee Institute of Forensic Science which links scholars, researchers, students, forensic scientists, law enforcement, the legal community, and professional practitioners in many fields to address the scientific and social issues confronting forensic science and the criminal justice system throughout the world. In addition, she works as a consulting criminalist, where she is a qualified expert in both state and federal courts. She is a co-editor of the recently published two-volume book **Portable Spectroscopy and Spectrometry** and a co-author of the book **Blood Traces**. She has also co-authored 2 laboratory manuals, 7 book chapters, 20 journal articles, 1 encyclopedia article, and over 100 professional conference presentations. She is a past-president and on the board of managers of the New York Microscopical Society (NYMS) and on the Governing Board of the Eastern Analytical Symposium (EAS). For SAS, she is the membership chair, on the Ad Hoc Diversity and Inclusion Committee, and has chaired sessions on Chemometrics and Forensic Science at SciX.

When not working, Brooke spends as much time with her husband and two children, Riley (7) and Grayson (4), as possible. She is an avid sand collector who enjoys "exploring the world, grain by grain" as a member of the International Sand Collectors Society (ISCS), is a movie buff with a penchant for superhero and sci-fi films, and has been 'officially' sorted into Gryffindor house.

Why should you be elected?

I have been very lucky in my career to have had several phenomenal mentors, and they have modeled for me the value of being an active member of professional societies. Being a member of SAS has so many benefits, including (but not limited to) enabling one to broaden one's knowledge of spectroscopy, enhance one's network, make new friends, become a mentor and/or a leader, and give back to the community. Being elected to the Governing Board of SAS would enable me to give back to the SAS community by working to ensure that "the Society is functioning at the highest level possible providing our members with the most for their membership dollars". As the membership chair of SAS, I have amassed useful knowledge of how SAS works, what we do well and need to work on (discussed in questions below), and I would love to have the opportunity to contribute further to SAS as a member of the Governing

Board. I am a hard-working, creative problem-solver who, if elected, will make the most of this opportunity to contribute to the growth and successes of SAS.

What is SAS doing well and why?

All SAS products are of extremely high quality. Our excellent journal, **Applied Spectroscopy** (helmed by Sergei Kazarian, the editor-in-chief) contains terrific articles on a range of spectroscopy topics covering both fundamental science and applied research. Our informative SAS e-newsletter (edited by Luisa Profeta) keeps our membership apprised of all things happening in our society, with our members and in the world of spectroscopy. And SAS-sponsored training courses, workshops and/or webinars (many organized and/or taught by Ellen Miseo) are always valuable for continuing education as you are ensured to learn a new trick of the trade. Members of SAS should be very proud to belong to a society which provides so much to the spectroscopy and scientific community.

SAS also has created a wonderful community of spectroscopists. Every year I look forward to going to SciX or Pittcon so I can see my SAS friends. Not only is the membership composed of many of the most brilliant spectroscopists in the world, but we are also filled with some of the most generous people who truly care about each other's successes. Many collaborations are built through SAS social events and meetings. In a world where many professionals are very competitive and cutthroat, SAS members are unique in that we look to help and build each other up. The supportive community that SAS has established is something that is exceedingly rare, and I value it tremendously.

What does SAS need to do better and how?

SAS needs to go beyond SciX and Pittcon, and provide year-round activities for our membership. Going to SciX and Pittcon to learn from and interact with other SAS members has immeasurable value, and I would like to see other opportunities for networking to happen throughout the year wherever one may live. This will start with the regional SAS societies, and some like NY/NJ and the New England chapters have offered truly fantastic virtual meetings during the pandemic. I would like to see all SAS regional and technical sections provide activities and meetings throughout the year, many with hybrid or virtual components, so that the value of being a SAS member can be felt by everyone all year long.

SAS also needs to encourage more of its members to get involved with the society. I am not sure exactly how to do this, as many opportunities to contribute to SAS are posted on the website, social media or the newsletter, and go unanswered. I know it is daunting to email someone you may not know and volunteer. That's how I became the membership chair - I saw a posting in the newsletter and cold-emailed Bonnie Saylor and Andrew Whitley. Although it was a little overwhelming at first, volunteering to be the membership chair has been incredibly rewarding for me and I recommend that all members take that first step to volunteer for SAS.

What initiatives do you hope to pursue?

There are several initiatives that have been proposed within SAS that I hope to help bring to fruition, and I will describe my top 3.

- The first was proposed by our president-elect, Andrew Whitley, which is an initiative called "One SAS". The goal of "One SAS" is to brand and increase the profile of SAS around the world. This initiative aims to encourage our members and partners to work together to communicate the SAS mission and benefits to colleagues/friends who are interested in becoming more proficient in spectroscopy. Membership campaigns such as "One Plus One" will encourage members to spread the word of SAS with the goal of recruiting new members. - A second initiative is the updating of our website, which is underway and in the exceedingly capable hands of Shawn Chen. The digital world is always changing, and the SAS website needs to stay relevant, informative and useful. A good website creates trust with its users, and the SAS membership deserves this. However, there is only so much volunteers can do for the website, and I would like to see SAS provide financial support for a new web design. Some may say that this was done relatively recently, however the speed at which the digital landscape changes means that what we did ~5 years ago is already outdated. A good website would be our digital portfolio which we can use to attract new members and be useful for our current ones - the benefits of this are potentially priceless for the health and growth of SAS. - The third initiative is to put more attention and resources towards our regional and technical sections. As I previously wrote, I believe that we need to do more for our members throughout the year, and having more robust programming from our regional and technical sections (including virtual or hybrid events), will enable SAS to stay relevant 12 months a year.

Why is SAS membership important?

SAS membership enables you to strengthen your network, further your career and make new friends. The professional networking afforded by membership in SAS is unparalleled. In addition to providing its members with the latest developments in spectroscopy and its applications (through **Applied Spectroscopy**, the newsletter, and social media), membership can enhance your personal and professional development and provide endless networking opportunities. Being a member of SAS helps me to stay inspired and motivated, as it helps me to remember to love spectroscopy and the spectroscopy community! The collaborations that I have formed through SAS have greatly benefited my career while the friendships I have made with SAS members has enriched my life even more. It is important to be proactive about things you discover on the journey of life, and membership in SAS provides the opportunity to discover something new in the field of spectroscopy at every turn.

What are the challenges facing SAS?

The biggest challenge to SAS is our declining membership. This problem is not unique to SAS, as all professional societies are finding it harder to get people to join, renew, volunteer, and even read our emails. Many people have looked into the root cause for this universal decline, with no clear answer. It is hypothesized that it is due to the fact that people are busier now than even 10 years ago, we are bombarded with more emails and ads, and access to information and people has continued to get easier thanks to the internet, open-access journals and growth of virtual platforms and communities. SAS has taken steps to try to reverse this trend, such as with the creation of the Early Career Membership Group (chaired by Fay Nicolson), establishing new and/or stronger relationships with other organizations or publications (such as Wiley,

Spectroscopy Magazine, and Photonics, thanks to Richard Crocombe, Ellen Miseo, Andrew Whitley, and others), and the end-of-year member campaign. And more is coming, with a focus on being more responsive to the needs, interests, and expectations of our members.

Despite the challenges facing SAS, we have a great leadership team of dedicated individuals who are committed to fulfilling our mission to "advance & disseminate knowledge & information concerning the art & science of spectroscopy & other allied sciences". I am confident that SAS is heading in the right direction, with a focus on preserving the amazing legacy and principles of SAS while simultaneously looking for future opportunities for growth and improvement.

How do we meet these challenges?

To meet these challenges, SAS needs to become a global leader for all things spectroscopy related. We need to expand into Asia and become more widely recognized in Europe - two initiatives that are currently being explored by SAS members (most notably with the China Initiative being spearheaded by Shawn Chen). We need to capitalize on available technologies to better utilize our biggest asset: our membership. The membership of SAS represents the greatest spectroscopists and spectroscopy educators in the world, and it is clear from our last membership survey that networking is viewed as the most valued member benefit. As I previously described, I would like to see SAS stay relevant all year long through in-person, virtual and hybrid events hosted by our regional and technical sections. I think this would make a big difference in retaining our members and attracting new ones.

What new programs should SAS pursue?

In addition to the 3 initiatives described in a previous question, I think that SAS should look beyond the traditional world of spectroscopy and spectroscopists. Spectroscopy is not only used by spectroscopists - it has become a tool for a range of scientists and non-scientists around the world. From metallurgists who use LIBS to identify different grades of steel, environmental scientists using vibrational spectroscopy to identify microplastics, police officers using portable spectrometers for illicit drug identification, and doctors using spectroscopy for medical diagnoses (in the future), spectroscopy is everywhere. Spectroscopy is one of the greatest tools for addressing and possibly solving a range of the world's problems. SAS should pursue programs which tap into those who use spectroscopy but may not identify as "spectroscopists". SAS can provide a range of services to these industries and people, from trainings to creating collaborations with our members, which would not only grow SAS as a society but benefit both our membership and the greater scientific community.



Sharon Neal

Biography

Sharon L. Neal is an analytical chemist in the Department of Chemistry and Biochemistry at the University of Delaware (U of DE). Her current work focuses on the development of multichannel optical spectroscopy and multivariate data analysis methods for monitoring the reactive oxygen species produced during photosensitization of pollutants in water-borne microorganisms and pharmaceuticals in tissues. During her tenure at U of DE she has served as a rotating program officer in the Chemistry Division of the Mathematics and Physical Sciences (MPS) Directorate at the National Science Foundation (NSF) and spent a sabbatical leave as a visiting professor in the Biology Department at the University of New Mexico. Before moving to U of DE in 1998, she was an Assistant Professor at Spelman College and UC Riverside. She also worked as a staff chemist in Corporate Quality Assurance at The Coca-Cola Company prior to completing her graduate degree. Prof. Neal earned the B.S. in Chemistry at Spelman College and the Ph.D. in Chemistry at Emory University. She conducted post-graduate research at the University of Washington and Naval Research Laboratory. At the U of DE, she is co-chair of the African Heritage Caucus (of faculty and staff) and member of the ADVANCE Institute Internal Advisory Board. She is a member of several professional societies including the American Chemical Society, the Society for Applied Spectroscopy and the National Organization for the Professional Advancement of Black Chemists and Chemical Engineers (NOBCChE) in which she serves as the Northeast Regional Chairperson and U of DE Student Chapter faculty sponsor. She serves on the advisory board of the Committee on the Advancement of Women Chemists (COACH) and is a past advisory committee member of the MPS Directorate at NSF and the Open Chemistry Collaborative in Diversity Equity (OXIDE). She is also a past ACS Delaware Section Councilor and member of the A-Page Advisory Panel at *Analytical Chemistry*.

Why should you be elected?

I have served in many roles in several professional and volunteer organizations over the years, including NOBCChE and ACS. Again and again, I have seen how important promoting and sustaining member engagement is to an organization's stability and vibrancy. Engaging new members requires concerted effort and outreach activities, especially when those members' background or experience is different from the current membership. My long experience, especially my work with NOBCChE and COACH, equips me to promote SAS goals to increase the engagement of existing members and expand the outreach to new members.

What is SAS doing well and why?

The Society provides the traditional elements of established professional societies well: a respected international journal, theme-focused annual meetings, a robust award program, newsletters and sponsor driven marketing. This reflects the Society's long history and the

dedicated service of leadership and members to engage sponsors and produce informative, engaging programming.

What does SAS need to do better and how?

Promote more and deeper interaction between SAS members: Spectroscopists, like knowledge workers in all fields, are barraged by multiple streams of incoming data. Important information is available from many sources using evolving formats, but extracting it from multifarious data streams can be difficult, so staying informed can be a significant challenge. Conversely, the Society is challenged to sustain its connection to existing members and engage new members in a crowded information environment. The challenge of engaging new members is particularly acute for spectroscopists in fields beyond traditional spectroscopic investigations and spectroscopists from underrepresented groups. The lack of integration of the Society's social media and internet platforms limits the Society's capacity to expand its outreach and promote engagement, particularly of younger spectroscopists.

What initiatives do you hope to pursue?

I hope to support the Society's efforts to integrate its social media and internet platforms to support more flexible, targeted member engagement initiatives. These initiatives would include outreach to spectroscopists in underrepresented groups and those in fields beyond traditional spectroscopic analysis and investigations. This is also an opportunity for the Society to expand the type and scope of information services it can offer to members and sponsors, including professional development resources, supplementary technical curricula and targeted marketing.

Why is SAS membership important?

SAS is a forum for spectroscopists to exchange knowledge, establish common standards as well as develop camaraderie. In these times of rapid innovation, an increasing growth rate in publications and increasing isolation, more efficient, facile communication and interaction between spectroscopists is a prime value.

What are the challenges facing SAS?

Clearly, traditional funding streams available to professional societies are under pressure: companies are less likely to pay for their employees dues and meeting travel; business models in publishing are changing and the evolution of media platforms requires flexible marketing strategies. The fact that the SAS social media presence is not integrated with its website undermines the effectiveness of both, particularly with younger members.

How do we meet these challenges?

Emphasize SAS' role in building stronger networks between and among SAS members: As mentioned above, I believe that integrating the Society's social media and internet platforms to support more flexible, targeted member engagement initiatives is an important tool to address the challenges we are facing. Increasing the use of hybrid virtual/in-person meetings and informal member interactions can also help the Society promote stronger ties between members and the association.

What new programs should SAS pursue?

1. Upgrade the Society's website and integrate it with its social media platforms.
2. Expand course, professional development (elevator talks, resume review, mock interviews and proposal pitches) and informal meetings using hybrid in-person/online offerings beyond national meetings.
3. Survey existing sponsors to identify additional services that SAS could offer to enhance sponsor loyalty and to appeal to future sponsors.



Luisa Profeta

Biography

Luisa became a SAS Student member in 2004 while attending the University of South Carolina to work on her Ph.D. in Physical Chemistry. Through her time in school, her involvement with SAS as an active member continued; and once she started her postdoc at Pacific Northwest National Laboratory (PNNL), she was elected to the Board of Managers for the Coblenz Society, a technical section of SAS.

Luisa's subsequent moves to MRIGlobal (formerly Midwest Research Institute), Alakai Defense Systems, Field Forensics, Inc., Madico and most recently Rigaku Analytical Devices, have allowed her to remain active in researching and using IR, Raman, GC-MS, XRF and other spectroscopic applications for different clientele. Subsequently, she's also remained active in the SAS, Coblenz and FACSS communities. She has previously served as a board member for SAS and Coblenz, was the SciX 2014 General Chair in Reno, NV, and is currently the Editor of the SAS Newsletter since 2020 and is on her second term as Coblenz Secretary. She has also been promoting applied spectroscopy at the SPIE.DCS meeting as a co-Conference Chair for the *Next Generation Spectroscopic Technologies* along with other SAS colleagues.

When Luisa is not traveling for work, assisting FACSS, Coblenz and SAS, or making sure that her three children (ages 9, 7 and 5) are not burning down her house, Luisa dabbles in a variety of activities, including, but not limited to: powerlifting, running, cycling, swimming, reading, gardening, playing Settlers of Catan, cooking, crochet and traveling for leisure.

Why should you be elected?

In short, I am not afraid of change.

As I am working on this biography and such, I'm literally waiting for my real estate agent to come take pictures of my house so we can put it on the market tomorrow. A new job position is

taking my family from Florida to New Hampshire, and all of this has transpired in less than 30 days time. If that's not the epitome of change, I'm not sure what is! Sometimes radical change is necessary for us (both as individuals, and as groups/societies) to make the forward progress that has been evading us for some time. Likewise, change takes hard work, and such a need of effort doesn't scare me.

I take the same view with my efforts SAS, Coblenz, FACSSS and SPIE involvements. Change can be unnerving, and feel like a huge leap of faith with stewarding an organization, but these changes can truly allow an organization to morph into an entity that best serves the membership for the challenges of today and tomorrow. I'm not advocating for rash change, but change that has been examined, and determined it could pivot the society towards a new trajectory that promotes growth, financial stability and continued service to the membership.

What is SAS doing well and why?

SAS has been working diligently the last six years or so to right some serious issues that threaten the long-term stability of the society. Several of these aspects have been "behind the scenes" so to speak, such as working to reduce costs to the society, a complete revamping of the SAS ByLaws, and working to bring in new and different revenue streams. These tasks, from a historical context, are not trivial, and do take time to implement. These policies reflect the evolution of not only the Society, but of the world we live in, and keeping the Society relevant to practicing spectroscopists world-wide.

Our efforts for young professional development have also been progressing nicely, due to the efforts of Early Career Membership committee. This was an area I wanted to see tackled about two years ago and to see it in full-swing at this point is very satisfying!

SAS does outreach to young students exceedingly well. Reaching out and drawing in current graduate students into the society has consistently been a strong point of the society since my introduction to the society in 2004. I believe this is due to the enthusiasm of SAS Student Presidents and other core SAS volunteers who truly want the society to make an impact in the lives of young spectroscopists.

What does SAS need to do better and how?

SAS needs continued progress in creating new revenue streams. This has been an ongoing issue for a number of years now, and while the Governing Board is helping to suggest areas of production of new income, some of these concepts have not yet taken shape or they are very slow in implementation. It would behoove the society to create an *ad hoc* committee specifically empowered to work on this area. While the Marketing Chair Adam Hopkins is focusing on this as part of his efforts, he is only one man! Lending more Governing Board help to this effort would help accelerate this effort significantly.

What initiatives do you hope to pursue?

My initiatives are interconnected with the programs I would like to see move forward, so please see my answer to that question.

Why is SAS membership important?

I appreciate the camaraderie and networking help that SAS has provided with my career, and I try to give back in kind. I wrote about this in a SAS Newsletter article late in 2020, but in the thick of job searching last year, members of SAS gave me the most professional support, and lest it sound hokey, emotional support too. Finding a new senior-level spectroscopy position when you're suddenly out of work takes a lot out of us on multiple levels. I had several job leads via SAS members, and while not all of those worked out, it gave me hope that I wouldn't be out of work indefinitely. The SAS connections also help keep me current in the area when I took on non-spectroscopy related part-time work before I landed a full-time position. All of this far, far exceeds the dollar value of a SAS membership, and is completely invaluable to a full-time breadwinner in the family like myself.

What are the challenges facing SAS?

Similar to other professional science organizations, SAS faces the on-going challenge of relevancy in a world that continues to push towards non-in-person connection and evolving member needs. We saw this in action this past year with the cancelation of an in-person SciX meeting due to COVID. The FACSS SciX team did an outstanding job navigating a completely virtual landscape for SciX 2020. But did SAS do the same? Did SAS have room to improve? My answer to at least the last question is, yes.

Other questions that SAS needs to continue to tackle: Does Applied Spectroscopy reach target audience for the most impact? Can SAS membership provide more than just another line on my CV? How do I justify my membership to SAS when I'm not a professionally trained spectroscopist? These are questions that demand answers if the society is to continue to be relevant for the decades to come.

How do we meet these challenges?

Refocusing on the core SAS values will engage us (the SAS members, the Executive Committee and Governing Board) to answer these challenges. Specifics of how I would help meet these challenges are detailed in my next answer regarding SAS programs.

What new programs should SAS pursue?

We need to focus on the most critical functionalities SAS provides. The current state for posting job openings is mediocre at best. Instead of turning to SAS as their top site for jobs outside of graduate school, students must turn to large organizations such as Indeed, LinkedIn, Monster, etc. in the hopes of perhaps finding a job that they are somewhat qualified for, rather than more targeted jobs SAS could hypothetically post on their page.

Another program idea that developed in the wake of COVID last year is boosting our online educational presence. Folks like Ellen Miseo and Andrew Whitley (just to name a few, but those aren't the only people who have contributed!) have definitely helped in those efforts. However, I believe those efforts are just the tip of the iceberg that could help make SAS more relevant, generate income and prove to be a significant member benefit besides just receiving the

journal. I believe we'll receive quite the payback if we invest in this pursuit more than we have already done.



Gloria Story

Biography

Gloria Story received her A.S. in Science Technology from the University of Cincinnati - Blue Ash (1981) and worked towards a B.S. in Chemistry from UC and the University of Utah. She is currently a Senior Scientist with the Corporate R&D Innovation Center Organization of the Procter & Gamble Company as Operations Manager of their Global Technology Export Compliance Program. She has over 36 years of service in spectroscopy applications, including NIR and MIR imaging.

With over 20 years of membership in the Society for Applied Spectroscopy, Gloria is currently serving as an elected Governing Board delegate and acting-President for the Cincinnati local section. She served as Section Affairs Coordinator, Secretary, Membership Coordinator, Tour Speaker Coordinator, and workshop instructor at PittCon and SciX. She's been an active member of the Coblentz Society for over 30 years, currently serving as a mentee in the Speed Mentoring program. She served on their board, as a booth chairman, and as a liaison for PittCon. An ACS member since 1994, she is currently serving as coordinator for membership, Education Grants, undergraduate travel awards, and museum NCW programming. She served the Cincinnati ACS section as 2nd Vice Chair, NCW and Earth Day Coordinator, and Auditor.

Gloria Story has co-authored 28 research publications (16 peer-reviewed) and presented over 25 oral presentations. She has received numerous awards including the 2015 SAS Distinguished Service Award, Research Associate of the Year, Outstanding Service, and Outreach Volunteer of the Year Awards from the ACS Cincinnati Section, the Global Analytical Community of Practice Recognition and Pete Rodriguez Analytical Excellence Awards from the Procter & Gamble Company, and the America Service to Youth Award from the Dan Beard Council of the Boy Scouts of America.

In her spare time, Gloria sings in her church choir, serves scout troop 956, and provides STEM community programs.

Why should you be elected?

I've been a very dedicated member of SAS for over 20 years and wish to continue to serve the Society and its members as much as I'm able. Having Society members with volunteer

experience on the Governing Board, in my opinion, is very helpful. Experienced volunteers can draw from all the ideas they've been a part of over the years; those that were helpful, those that weren't as helpful, as well as those that were ignored and should have been, as well as those that should not have been.

What is SAS doing well and why?

Next to our excellent Journal, SAS's best contribution to its members is the many opportunities for networking. From the many social events organized at key meetings where its members attend, to symposia sessions for sharing the latest applications. These events and symposia provide informal and formal mentoring opportunities for students and young professionals with our member experts. SAS is also best-in-class in recognition of our top technical talent with prestigious awards. These valuable member benefits should continue through partnership efforts between SAS, its membership, affiliate societies, and amazing corporate sponsors. Passionate volunteers make it happen along with our dedicated office...we should encourage all members to chip in!

What does SAS need to do better and how?

SAS needs to figure out how best to retain and grow membership. I realize this is somewhat like the "world peace" answer for pageant hopefuls, but it continues to be true. We need to encourage and inspire our student and early career members to get involved and stay involved. I'm excited to see our new Early Career membership category and that our latest version of the bylaws continues to be very inclusive for all categories of membership. I hate to say the pandemic did us a favor, but it really did. All of us had to adapt to the digital world and use virtual connections. Now that we've got experience in these technologies, the ability to retain members by staying connected in a more digital manner seems less onerous. Some of our local sections are leading the way...sharing their meetings/seminars with the rest of the Society via virtual connections. We can't go back to the old ways, however I can see that our next in-person event should be absolutely amazing!

What initiatives do you hope to pursue?

I would like to assist the Society in increasing the use of virtual meetings to enhance the involvement of our members. I'm excited to continue being a mentor in our Coblenz Society affiliate's Speed Mentoring program. This should grow into a double session of timing, rather than a short lunch time. I'm already engaged in the program planning for SciX 2022, which will be near my hometown!

Why is SAS membership important?

I can speak from my own experience...my membership to the Society has had a huge impact on my career success (36+ years and 3 promotions) and my development as a spectroscopist. My volunteer positions - from governing board member, to tour speaker coordinator, to several positions on the EC - has really helped me to develop my leadership and negotiation skills. Being plugged in to this amazing network of top technical talent has enhanced my ability to deliver cutting edge spectroscopic technologies to my day-to-day problem-solving activities. I

know who to call when I need information or technical help, and I feel very comfortable asking for it. Besides, my very dearest friends are members too!

What are the challenges facing SAS?

1 - membership retention and growth (see earlier discussion)

2 - serving a diverse community

We have a wide range of members: active, inactive, emeritus, novice, passionate, and unengaged. Some want to change the world and others just want to put their affiliations on their CV. SAS needs to learn to embrace all of these voices. Now the old saying of you can't please them all very much applies. However, our goals and programs should meet the needs of most without alienating the extremes too much. A tough job? You bet it is!

How do we meet these challenges?

SAS should continue down the road it has begun...analyzing what works and what doesn't in the committees already assigned to those tasks (and recruit new volunteers!). Keep the good ideas, weed out the bad, and look to the future of the Society - students and early career members - while still engaging the more experienced for support and guidance.

What new programs should SAS pursue?

In support of our new Early Career member category, I for one would like to see proposals for new 1/2 or full day sessions at PittCon, SciX, EAS, and other meetings our members find important - dedicated to early career speakers. This will require a bit more financial support than other sessions, as early career members tend to have less to no travel expense support.



Karen Wieland

Biography

I recently joined the Competence Center CHASE GmbH in Vienna, Austria after being a postdoctoral researcher at the Chair of Analytical Chemistry, TU Munich (Germany). The focus of my research is the application and optimization of vibrational spectroscopic methods along with chemometric data analysis.

I received my M.Sc. degree with specialization in biotechnology and bioanalytics from TU Wien (TUW) in 2014 and my PhD in Technical Chemistry (TUW) in 2019. During my time in Bernhard Lendl's group at TUW, I applied Raman and infrared spectroscopy for imaging and

characterization of biological samples at the micro- and nanoscale. Besides of nanoscale imaging of drug-containing nanocarriers by means of photothermal induced resonance (PTIR) spectroscopy, I was working on the combination of Raman spectroscopy with ultrasonic particle manipulation for increased in-line sensing sensitivity and selectivity in process analytical technology (PAT) applications. At TUM, I focused on different applications of vibrations spectroscopy such as the development of an antibiotic susceptibility platform based on Raman spectroscopy, or PAT applications in flow reactors. As part of the Competence Center CHASE GmbH, I am again focusing on vibrational spectroscopy as valuable PAT tool to work towards the European Green Deal, circular process streams, and the development of digital twins.

Having been a SAS member for 5 years, the community has accompanied me since my earliest days as a researcher and has certainly helped advancing my academic career and professional network to what it is today.

Why should you be elected?

Being an early-career researcher in Europe who just started working at the interface between academia and industry, I will bring a valuable perspective to the Board. I have been a SAS member since 2016 and was in the fortunate situation that my former PhD supervisor put great efforts into encouraging his students to attend international conferences such as SciX, or ICAVS which can be a substantial financial burden for researchers outside North America. SAS has a strong focus in supporting young scientists financially and on a professional level. However, there is room for improvement of the SAS outreach in Europe. I have always enjoyed being part of SAS and want to engage more young researcher to be part of the community too. I think that I can improve this situation as member of the Board.

What is SAS doing well and why?

In my opinion, SAS strongly supports young researchers and enables networking opportunities which is a mission that I'd love to be part of. Every year, when I get to attend one of the conferences it feels like a family reunion but without the awkward family secrets that are shared at the dinner table. I really enjoy browsing the Applied Spectroscopy journal edited by SAS to read up on a lot of cool applications of vibrational spectroscopy and high-quality research in this field. Side note: I published my first paper as first author in Applied Spectroscopy.

What does SAS need to do better and how?

I'd like to improve SAS's outreach in Europe. In addition to existing grants and scholarships, I could envision a dedicated initiative to help European students to e.g. find internships within the SAS network and foster scientific exchange by offering dedicated travel grants for attending conferences overseas. SAS is a unique community whose members that are among the most experienced spectroscopists. I would greatly encourage to provide more online webinars on the basics of vibrational spectroscopy, spectra interpretation, sample preparation or Q&A sessions on predefined topics.

What initiatives do you hope to pursue?

One of the most exciting things about SAS for me was that I got to meet people that I had only known from book titles and author lists. And they would not only present their science but were also happy to chat, to give advice or to just go and grab a beer. I want many more students to share this experience and get them excited for spectroscopy. And that is the spirit of the initiatives I want to pursue:

To bring more (Central European) students into SAS, I would like to make use of the proficiency with video conferencing technology students and professors have gained over the past year to create an 'Ask an expert' series of video meetings. Rather than focusing on the 'info dump' format of a lecture, I would go with an inverted class-room design. Students will get journal articles on the topic of the meeting in advance and are asked to prepare or send in questions. While somewhat similar than an ordinary journal club, here, students would talk to the author of the paper directly and be able to ask additional questions during the meeting. I would also like to explore options to award credits/certificates to the attending students that are accepted by their universities.

Why is SAS membership important?

SAS membership brings with it: networking, job opportunities, partners for joint research adventures, wine and cheese, etc.

While the SAS community is open to everyone, especially new members, without regard for their membership status, being a paying member is an important way to give back to the community.

What are the challenges facing SAS?

While I enjoy traveling to attend conferences, meetings etc. overseas, I expect that transatlantic travel will become more costly over the coming decades, as we are stepping up our efforts to combat climate change globally. The past year has taught us that online meetings are OK as long as they are a temporary solution.

How do we meet these challenges?

We will need to find a balance between online and in person meetings (and advance science!). And while we are waiting for teleportation technology to arrive we should think about ways to translate also the informal part of our conferences into the virtual world.

What new programs should SAS pursue?

SAS has a high level of expertise across all types of spectroscopy and counts many renowned experts in its ranks. I believe that SAS should leverage this expertise by offering more webinars and short courses on practical aspects of spectroscopy and Q&A sessions on current hot topics. For example, each focal point review in Applied Spectroscopy could be accompanied by such a Q&A.

What is SAS doing well and why?

In my opinion, SAS strongly supports young researchers and enables networking opportunities which is a mission that I'd love to be part of. Every year, when I get to attend one of the conferences it feels like a family reunion but without the awkward family secrets that are shared at the dinner table. I really enjoy browsing the Applied Spectroscopy journal edited by SAS to read up on a lot of cool applications of vibrational spectroscopy and high-quality research in this field. Side note: I published my first paper as first author in Applied Spectroscopy.