

Surgery Interest Group (SIG) Blueprint for Success

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Overview/Purpose of Blueprint

It has been reported in the literature that Surgical Interest Groups (SIGs) remain crucial in fostering medical student interest and influencing the perceptions of various surgical fields.¹⁻⁷ SIGs play a critical role in medical schools by significantly enhancing surgical education and shaping the career trajectories of aspiring surgeons. By placing education in the hands of the students, SIGs provide a unique opportunity for medical students to take charge in their own career development and experience within the surgical field. These student-led initiatives provide invaluable experiences for medical students, particularly those at institutions with limited access to surgeons or surgical resources, to engage with likeminded peers and build collaborative networks that strive towards the success of those involved. Through nurturing interest and providing essential support, SIGs help shape the future of surgery, encouraging a diverse and well-prepared next generation of surgeons.

This document, the “Surgery Interest Group (SIG) Blueprint for Success”, is designed to serve as a comprehensive resource tailored for SIG leadership teams. The blueprint will serve not as definitive guide, but rather a troubleshooting document for new SIGs or inspiration for current SIG leaders. Each section below reviews common logistics of organizing and leading a SIG and provides ideas for educational programming.

Local Events

Panels

- **Faculty panels:** Faculty panels can serve as an introduction to surgery for those who may be exploring many interests. These panels would ideally include diversity in terms of specialties, career structure (those focusing on clinical vs research vs academics), and career stage. Potential topics of discussion include training pathways, how and why they chose their specialty, work-life balance, what the typical surgeries in their specialty are, and specialty-specific considerations.
- **Match panels:** Match panels are a great event to host shortly after the match in mid-March. For institutions in which there are many other surgical subspecialty groups hosting their own match panels, the SIG match panel can focus on students who matched into general surgery. For institutions in which the SIG serves as an umbrella surgical organization, match panels can include students who matched into all types of surgery. For these panels, have a form through which audience members can submit questions ahead of time.
- **Fertility panel:** Numerous studies have shown that the rates of infertility are higher in doctors than the general population, as well as higher in surgeons than other specialties. A fertility panel is an excellent way to foster important conversations about topics students may have questions on. This panel can incorporate faculty and residents at the

institution. A sample panel could include a fertility specialist, an OBGYN, a resident, and a faculty member.

- **Surgery rotation advice/tips:** MS4s who performed well on their surgery rotation can provide advice for incoming MS3s. You can also consider inviting faculty members to discuss common OR etiquette, overall expectations, and ways to excel. This can be done virtually or in person.
- **Mixers:** Invite local surgeons and residents for an informal in-person mixer with students to allow everyone to network more naturally. If funds allow, provide food and drinks.

Hands-on Events

- **Suturing events:** Suturing events serve as a terrific way to promote interest in surgery and provide those interested in surgery with a welcoming environment to learn technical skills. These events can also be hosted in collaboration with other specialty surgery interest groups. A suggested suturing event may involve a short 30-minute introduction to suturing (instruments, two-handed knot tying, one-handed knot tying, different kinds of sutures, different kinds of suturing techniques, safety tips), followed by hands-on practicing for the remainder of the event. Materials required include material to suture on (i.e., suture board, sponges, pig skin), instruments, suture, gloves, and rope for demonstration and practice. Shoe laces, dental floss, or fishing wire can be used as a low-cost alternative to sutures if need be. As for the suture pads, consider borrowing them from the institution's simulation center, acquiring cadaver skin flaps from the anatomy lab, or asking local butchers or grocery stores for pigs' feet.
- **Surgical instruments & scrubbing in workshop:** Hosting a combined workshop to review common surgical instruments and how to properly scrub in is a great way to incorporate the online resources ACS has and prepare students for two basic yet crucial parts of their surgical clerkships. This workshop can also serve as a great way to introduce medical students to overall operating room etiquette, such as how to read the status boards, where to find pre-op and post-op patients, what is sterile in the operating room, and what to do if you become contaminated.
- **Medical Representative Demonstrations:** Invite medical representatives from companies like Stryker, Ethicon, Medtronic, etc. to come and do demos of the instruments and tools they provide in the OR. Asking attendings for connections to individuals who may be interested is an easy way to get in touch with these medical representatives.
- **Splinting Workshop:** Host a splinting workshop by collaborating with a local sports rehab center or athletic trainer. They can demonstrate the various types of splints and students can then practice wrapping each other's wrists, ankles, etc.

Shadowing

- Shadowing can serve as a great way to increase exposure to surgery during preclinical years, but it can be tricky to coordinate shadowing. One way of initiating a shadowing program would be to send emails out to attendings and asking for those who would be willing to have medical students' shadow, whether in the clinic or in the operating room. Students can then relate to individual attendings in specialties of interest. Another method of initiating a shadowing program could involve working with faculty/residents to create a rotating system through which medical students can join on service for a pre-specified shift. This model works especially well with services like trauma.

Preceptorship Electives

- Some medical schools may offer zero-credit electives for the preclinical years. Consider developing an elective (e.g., pediatric surgery elective) where student leadership works with faculty of a specific department to arrange longitudinal shadowing and mentorship over the course of a semester. This is a wonderful opportunity to also incorporate journal clubs with the whole cohort. Students are also encouraged to participate in research projects with their assigned preceptor.

Subspecialty Events

- Specialty roundtable: Specialty roundtable could involve inviting one faculty from each surgical specialty to join a Zoom call or an in-person event. Given the vast number of surgical specialties, a traditional panel may not be the most effective way of hosting this event. Rather, it may be more effective to either: (1) have a Zoom meeting with multiple breakout rooms (one faculty/specialty per room) through which students freely rotate through; or (2) have an in-person event with multiple round tables (one faculty/specialty per table) that students can rotate through.
- Consider hosting events/panels jointly with other surgical subspecialty groups and nonsurgical organizations to expand reach and optimize funding opportunities. If other surgical sub-specialty SIGs exist, coordinate with these groups to minimize overlap in events. Many events, such as suturing events, are applicable to all sub-specialty SIG groups and can be co-hosted.

Research/Journal Clubs

- Learning about research opportunities can be tough, especially at the beginning of medical school. SIG leaders can develop a resource, like a research database, to house all available projects. Residents and attendings can then contact SIG leaders to have their project advertised with specific details such as project description, time commitment, background expertise required, main email contact, etc.
 - If your medical school has a research club, consider collaborating with them as they may already be hosting journal clubs for students to participate in. You may

consider holding one each month and making it specialty-specific to foster collaboration with as many SIGs and specialties as possible.

- Consider reaching out to your medical school/institution's librarian regarding any resources they may have to help establish this.

Regional/National Events/Conferences

- Continue sharing information regarding ACS membership and events with SIG members.
 - A larger presence from a SIG at ACS events can facilitate inter-institutional networking in all surgical specialties. For smaller conferences, networking with attendings and connecting with other medical students can sometimes be easier. Interaction with other SIG leaders at national and local conferences can serve as a great opportunity to connect with each other and share resources and ideas.
 - Training with ACS resources and programs can strengthen clinical experience for the whole student body and provide concrete evidence to inspire curricular change.
- Medical student research symposiums
 - ACS Clinical Congress remains one of the premier conferences for all surgical specialties across all stages of training and those in practice.
 - Encourage interested students to submit abstracts to the Medical Student ePoster Session of Clinical Congress, advising them that abstract submissions generally open in April (categories include basic science, clinical science, education, outcomes, and innovation research).
 - Encourage students to sign up for the ACS Clinical Congress Medical Student Program. This is a 3-day session at the Clinical Congress geared towards medical students and often includes sessions on professional development, networking events, and keynote speakers that highlight the multifaceted nature of surgery. Registration for the Medical Student Program is free, and spots often run out quickly. Be sure to have students sign up as early as possible once registration is available (usually May).
 - To promote opportunities for medical students interested in sharing research at a local level, SIG leaders can consider hosting their own medical student research symposium. If feasible, a room can be rented for poster set-ups. However, Zoom is also a less expensive alternative. The virtual option would include a judges' panel, and each participant will have a chance to present their project briefly to the judges and the other attendees.
- Funding
 - Explore travel scholarships sponsored for various conferences. You do not always need to be presenting a specific project to submit an application.

- The ACS Medical Student Travel Award is available for medical students attending Clinical Congress.

Leadership Structure

- Core executive board:
 - President and vice president: The president and vice president can take on responsibilities such as overseeing the organization and leadership, communicating with attending and resident mentors, designating roles and tasks to the SIG leadership.
 - Secretary: The secretary can take on responsibilities such as managing internal and external communications, managing the email address and lists, and helping with documentation.
 - Treasurer: The treasurer can take on responsibilities such as applying for group funding, managing group finances, and creating budgets for individual events.
 - National Liaison: The national liaison can be designated to facilitate communication with national organizations, such as ACS, and keep up with their events and programming to be shared with the rest of the SIG.
- Additional board members/committees: Depending on the size of the SIG, additional board and committee members can be brought on. Roles for additional board/committee members include helping to lead and plan specific events and programming.
- Resident and faculty/attending member mentors: SIG resident and faculty mentors can help support SIG events and programming by serving as the bridge between the SIG and the surgical residents/attendings. Faculty members should also assist with continuity when SIG leadership changes and can assist with finding sources of funding.
 - Faculty members that can serve as good candidates for this role include the surgery Program Director, Associate Program Director, Clerkship Director, Association Clerkship Director, or Vice Chair for Education.
- Collaborating with other surgical subspecialty interest groups or even wider range of interest groups

Connections with Surgical Faculty

- Faculty sponsors can serve as a valuable resource for:
 - Educational discussion topics
 - Troubleshooting event logistics and obstacles
 - Recommendations for speakers

- Explore ways to interact with faculty of various surgical subspecialties if the medical school only has one SIG.
- Making your SIG a “named” society (i.e., naming it after a renowned surgeon at or from your institution) may be an avenue to elevate its visibility, recognition, and reputation among the student body, faculty, and the public.

Transition in Leadership

ACS SIG Directory Update

- **We highly encourage all SIGs to create a single email (e.g. Surgeryinterestgroup@institution.org or Institutionsig@blank.com) that all leadership can use and access. This allows the following benefits:**
 - The single joint email can be used to subscribe to national and local ACS emails to help keep track of opportunities to share with members.
 - Passing down the same email from year to year allows ACS to be able to contact new leadership, regardless of when leadership changes.
 - Student members may be more likely to engage with emails if they recognize the sender as the SIG. Students often experience email fatigue and may be less likely to miss an email from a joint SIG address than if it is from one of the student leaders’ emails they do not recognize.
- Provide ACS with updated SIG contact information so that the ACS SIG directory can stay up to date. Note: The survey to update the SIG directory contact information can only be submitted by faculty. Please contact your faculty mentor each year if there are changes in SIG leadership contact information.
- Interested medical students can also reach out to the student affairs office to obtain student leadership or SIG contacts.
- Stay connected by adding the ACS email address to contact book and following ACS on their social media sites.

New Leadership Selection

- If your school does not identify specific procedures for new leadership selection, consider how you would like to evaluate students for future leadership roles. Depending on applicant and leader availability, a written application, video application, individual or group interview, or any combination may help you best assess applicants. Ensure you leave time to discuss with co-leaders each applicant before decisions are due to your school.

- Connect new leadership with this document, your faculty mentor, and other resources you used! Even assistance on how to book a room or cater food can be helpful to new leaders and will help them get events going sooner.

Communication and Outreach

- SIGs should attempt to meet 2-3 months prior to the school year to plan the upcoming years events
 - This pre-planning event should include the student board and the faculty advisor
 - SIGs should aim to have 2-3 events per semester
 - SIGs should confirm with their school guidelines for the minimum number of events that a group needs to host to remain active
- Transition meetings should take place soon after the new board is elected and prior to the end of the academic year to allow proper on-boarding of the new board
 - This meeting should review expectations for the group and each role, review of the school year and events, vision of the next year, and introducing the new board to the faculty advisor
 - Be sure to discuss expectations for how often the board will meet, how often the board will meet with the faculty member, and what level of involvement the faculty member wishes to have
 - It may be advantageous to come up with a tentative calendar of events, taking into consideration exam schedules, to avoid scheduling an event the day before an exam and have low attendance/participation as a result
 - It may be necessary for students to meet individually with the person who is taking their place (e.g. previous treasurer and new treasurer) to brief them on any specific aspects of their role.
 - During the transition, if applicable, ensure the new leaders are added onto the bank account and the previous leaders are taken off, have access to the club email account and social media passwords, and are given access to wherever the club documents are held (e.g. google drive)
- SIGs should send out monthly emails or newsletters to their groups that may include any upcoming local, regional, or national events, shadowing opportunities, research opportunities and deadlines, and local volunteering opportunities.
 - SIGs should be available via email and check the email frequently for any questions from members or faculty

Funding

- Gaining funding to host events
 - Funding through the School of Medicine
 - Explore additional funding opportunities via the graduate student organizations. Some may require you to write a document with a mission statement, protocol, logistics, etc.
 - AOA project grants
 - Reach out to your faculty advisor to see if they have ideas for funding sources
- Ideas for when you run out of funding
 - Fundraisers: could consider selling apparel or mugs with either the school and/or SIG's logo
 - Collaborating with other SIGs that have funding on a joint event
 - Discuss with your faculty mentor or the speaker/guest for desired event; sometimes they will be able to provide materials/food. Some physicians may work closely with device representatives who may be willing to bring demo kits and hands-on exhibits as well as food.
 - Contact local hospitals/clinics who may be willing to donate expired supplies (e.g. sutures) for medical students to practice at workshops at their school.
 - Consider hosting events through the medical school's simulation center. Costs may be mitigated by the ability to use the supplies they already have on hand.

Useful Resources

- ACS website: <https://www.facs.org/>
- ACS Medical Student Resources: <https://www.facs.org/for-medical-professionals/education/medical-students/>
 - Professional Development Seminars & Teaching Modules
 - National Professional Development Seminars: <https://www.facs.org/for-medical-professionals/education/programs/national-professional-development-seminars-for-medical-students/>
 - National Tutorial Seminars: <https://www.facs.org/for-medical-professionals/education/programs/national-tutorial-seminars/>
 - Medical Student Education Modules: <https://www.facs.org/for-medical-professionals/education/medical-students/medical-student-educational-modules/>
 - Choosing a Career in Surgery
 - “So You Want to Be a Surgeon”: <https://www.facs.org/for-medical-professionals/education/programs/so-you-want-to-be-a-surgeon/>

- Guide to Choosing a Surgical Residency: <https://www.facs.org/for-medical-professionals/education/online-guide-to-choosing-a-surgical-residency/>

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