

# Small Chem Biz

Division of Small Chemical Businesses  
American Chemical Society



April 2020

Volume 50, Issue 1

## SCHB CALENDAR

August 16-20, 2020  
260th National Meeting  
San Francisco, CA

October 14, 2020  
Southwest/  
Southeastern Regional  
Meeting (SERMACS/  
SWRM)  
New Orleans, LA

December 15-20, 2020  
Pacifichem  
Honolulu, HI

March 21-25, 2021  
261st National Meeting  
San Antonio, TX

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## MESSAGE FROM THE CHAIR-ELECT

Jim Skinner



Please stay safe in this time of the COVID-19 pandemic. This crisis is affecting all of us and demands that we work even harder to address the scientific challenges of overcoming this devastating disease, as many of our colleagues are doing—developing assays and pursuing encouraging therapeutic solutions.

Even though most of us are in stay-at-home, lockdown situations, your Executive Committee continues to work on your behalf. It was absolutely necessary that the National Meeting in Philadelphia be canceled. However, at this point, the San Francisco ACS 260th National Meeting & Expo is still scheduled to take place August 16-20, 2020. The SCHB Division is preparing for this national meeting with a comprehensive program of educational and informative sessions. The abstract deadline has been extended to April 20<sup>th</sup>; there is still time to [submit your abstract](#).

Moreover, we are conducting a survey to identify some of the most provoking issues facing all of us. Our goal is to provide assistance in every way possible to help one another successfully address as many of these challenges as possible. Please take a moment to participate in this survey by clicking on this link: [Survey](#).

In addition, we have implemented a weekly Members' call-in, on topics relevant to shut-down and eventual resumption of business operations. Each conference call will be moderated by a SCHB Member and will provide an opportunity for Members to "discuss business" with one another about the issues they are confronting and seek advice, or, simply, have the opportunity to chat with colleagues. Watch your inbox for an eblast from SCHB about the next call-in. The evolving schedule is also listed on the website. Please suggest topics you'd like to discuss or volunteer to lead one.

Stay safe and healthy,

The Executive Committee of the Division of Small Chemical Businesses  
of the American Chemical Society

August 16 - 20, 2020 | San Francisco, CA

# ACS National Meeting & Expo

Moving Chemistry from Bench to Market

## Philadelphia Program

*As we all know, unfortunately the ACS 259th National Meeting in Philadelphia was cancelled.*

*Philadelphia, March 22-26, 2020*

*Macromolecular Chemistry:*

*The Second Century*

SCHB's technical program in the Philadelphia Convention Center would have been:

Sunday, 1:00 P.M. - *Bridging the Divide Between the Fine Arts and Science*

Sunday, 5:30 P.M. - *Chemical Business Poster Session*

Monday, 9:00 A.M. - *Competitive Business Climate*

Monday, 8:00 P.M. - *SCHB at Sci-Mix*

Symposia for all ACS divisions are available at:

<https://callforpapers.acs.org/philadelphia2020/SCHB>

Full details of the program, including the online meeting planner and link to download the mobile app are available at:

<https://www.acs.org/meetings>

On Sunday, March 22, SCHB held a SCHB Executive Committee conference call. All SCHB meetings and conference calls are open. If you have an item for the agenda or would like to dial-in on the next call, please contact:

[secretary@acs-schb.org](mailto:secretary@acs-schb.org)

Everyone was looking forward to SCHB & CHAS' *Chemistry You Can Taste* reception from 5:00 P.M. to 7:30 P.M. in Historic Conversation Hall, Philadelphia City Hall, just a few blocks from the Convention Center.

It's not too early to sign up for a few hours at SCHB's Expo Booth "discussing business" with Expo attendees in San Francisco, please contact:

[expo-booth@acs-schb.org](mailto:expo-booth@acs-schb.org)

Stay tuned to our Facebook page for frequently updated content: [fb.me/SCHBD](https://fb.me/SCHBD) and/or follow SCHB on Twitter @ACSSCHB. Be sure to use #ACSPhiladelphia.

## Business-related SWAG!!!



Make sure you pick up your business-related SWAG at the SCHB Expo Booth in San Francisco!

### SHARE YOUR ACHIEVEMENTS

Notify Newsletter Editor Adam Sussman at: [acs-schb.org/contact-us/](https://acs-schb.org/contact-us/) for recognition of your accomplishments in an upcoming issue. Please send any content to be included in the next newsletter by June 1, 2020.



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Contact SCHB Chair George Ruger at [www.acs-schb.org/contact-us/](https://www.acs-schb.org/contact-us/) to partner on entrepreneurial local section events and/or to collaborate with us on symposia at National/Regional Meetings.

For the full program schedule of the canceled Philadelphia National Meeting, please visit the programming website at <https://www.acs.org/content/acs/en/meetings/national-meeting/agenda/program.html>.

### ORIGINALLY SCHEDULED FOR SUNDAY, MARCH 22, 2020, AT 1:00 P.M.

#### Left Brain and Right Brain

Conflicted about your left brain vs. right brain? SCHB has the answer for you! Sunday afternoon was to feature Bridging the Divide Between the Fine Arts and Science, organized by Mark Golden. For hundreds of years the fine arts and sciences were intimately intertwined. Once artists were no longer making their own colors and reliant upon art material manufacturers for their materials, a great scission ensued. This symposium bringing together chemists, conservators, and artists would have attempted to again create that bridge of the value each can bring to the other. Presentations were to convey how scientific technology is used in conservation science, coatings, paint, and color matching; the fluid, creative process of painting; and innovation and partnership in Philadelphia Mural Arts.

### ORIGINALLY SCHEDULED FOR MONDAY, MARCH 23, 2020, AT 9:00 A.M.

#### Competitive Business Climate

The ACS position statement “A Competitive U.S. Business Climate: Innovation, Chemistry, and Jobs” is scheduled for review in 2020. This symposium was to feature discussion on topics around competitive business climate and pathways forward. Topics were to include analysis from the Federal Reserve Bank, global business challenges, issues affecting science-based companies, and case study of Strem Chemicals, Inc.

#### Call to Service

Do you want to help shape ACS through the work of internal governance and member service?

SCHB members are invited to submit their online preferences for ACS committee assignments in 2021.

If you are an officer in a local section or have part in a regional meeting, you should have an ACS Yellow Book entry. Go to <https://www.yellowbook.acs.org> to complete the online preference form, include the requested biographical information, and review/update your contact information. If you do not have a Yellow Book database record, one can be created for you. Contact [secretary@acs.org](mailto:secretary@acs.org).

Each member is encouraged to submit no less than two, but no more than four, committee preferences and qualifications (500 character limit) for each of their choices. The deadline is June 5, 2020. Although not all can be appointed to committees, all applicants will be reviewed and considered. A list of committees is at <https://www.acs.org/content/acs/en/about/governance/committees.html>.

Some committees are restricted to councilors, but many are not. The only committees that are restricted to councilors are the Standing Committees (Constitution and Bylaws; Divisional Activities; Economic and Professional Affairs; Local Section Activities; Meetings & Expositions; and Membership Affairs). Membership on Elected Committees (Committee on Committees, Council Policy, and Nominations & Elections) is determined by vote of the Council. All other committees are open.

Committee work can be at any time, but most is on a regular schedule, including at ACS national meetings. Many committees will reimburse their non-councilor members for expenses to attend a national meeting at an amount equal to 50% councilor reimbursement; for 202, this is \$752.

#### Share Your Thoughts with SCHB Members

We hope you enjoy *Small Chem Biz!*

Your articles, comments, and suggestions are welcome.

SCHB's mission includes publishing articles relevant to chemical business - small or large. Submission deadline for

the next issue is **June 1**.

If you have an idea, but are not sure it would suit an article, contact [newsletter@asc-schb.org](mailto:newsletter@asc-schb.org).

#### FOLLOW SCHB ON SOCIAL MEDIA

[@ACSSCHB](https://twitter.com/ACSSCHB) and  
[@ACSNatMtg](https://twitter.com/ACSNatMtg)

#### CONTACT THE SCHB EXECUTIVE COMMITTEE

<https://acs-schb.org/contact-us/>

REGIONAL MEETING REPORT 2020

SCHB finished its 2019 Regional Meeting activity with *Entrepreneurs Tool Kit*, at 71st SERMACS (Savannah, GA, *Chemistry on the Coast*) in October (See [www.sermacs2019.org](http://www.sermacs2019.org)), and *International Chemical Business: Best Practices*, at RMRM/SWRM (El Paso, TX, *Chemistry in Transition*) in November. (See <http://www.swrm.org>).

For 2020, SCHB was planning *Entrepreneurship in Chemistry - Transforming an Idea from the Bench into a Business*, organized by Satish Garre and Ryan Littich, at 51st CERM (Columbus, OH, *Envision Tomorrow's Chemistry*), May 27-30. Unfortunately, CERM was canceled. Visit <https://cerm2020.org/>.

At 76th SWRM & 72nd SERMACS (New Orleans) October 14-17, 2020, SCHB is sponsoring *Symposium in Honor of Sharon & John Vercellotti* (with CARB, organizer Jane Thomas), and *Chemical Business Resources & Best Practices* (organizer Joe Sabol). (See [www.swrm2020.org/](http://www.swrm2020.org/)).

If you think SCHB should be organizing at other Regional Meetings in 2020, send your recommendations to SCHB Program Committee via [www.acs-schb.org/contact-us/](http://www.acs-schb.org/contact-us/).

PACIFICHEM PREVIEW

Pacificem is scheduled for Honolulu, December 15-20, 2020, with theme *A Creative Vision for the Future*. Symposia organized by SCHB members include:

- *Chemical Business Best Practices for Global Challenges* (Adam Blunn & Joe Sabol)
- *Chemists and the Public: The Role of Informal Science Education* (Jennifer Maclachlan)

400+ other symposia are on the program. Abstract submissions closes April 15. For more information, See [www.pacificchem.org](http://www.pacificchem.org).

Stay tuned to our Facebook page for frequently updated content: [fb.me/SCHBD](https://fb.me/SCHBD) and/or follow SCHB on Twitter @ACSSCHB. We hope to see you at a Regional Meeting!

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SCHB at RMRM/SWRM (El Paso, TX)  
L to R: Joe Sabol, Jane Thomas, Niteen Vaidya, George Ruger

Business-related SWAG!!!



Make sure you pick up your business-related SWAG at the SCHB Expo Booth in San Francisco!

Jennifer Y. Tanir, Ph.D. **TOWARD SAFER LLC**  
Founder

[jentanir@towardsafer.com](mailto:jentanir@towardsafer.com)  
Washington, DC  
[www.towardsafer.com](http://www.towardsafer.com)

Consulting toward safer, more sustainable chemicals & products



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Mark Vreeke [mark.vreeke@chemicalangels.com](mailto:mark.vreeke@chemicalangels.com)  
Sid White [sid.white@chemicalangels.com](mailto:sid.white@chemicalangels.com)  
Judith Giordan [judy@giordan.com](mailto:judy@giordan.com)

[www.ChemicalAngels.com](http://www.ChemicalAngels.com)

*Catalysis Today* and the American Chemical Society (ACS) Divisions of Energy and Fuels (ENFL) & Small Chemical Businesses (SCHB) are pleased to announce a call for papers for a special issue highlighting research around a symposium, *In Honor of Gerry Meyer: The First 100 Years*, at the ACS National Meeting in San Diego. *Catalysis Today* Editors and ENFL & SCHB Division leadership look forward to highlighting Gateway to Novel Energy Conversion Technology In Honor of Dr. E. Gerald Meyer, to recognize high-quality energy, and catalysis research, and Dr. Gerry Meyer, ACS Fellow, and University of Wyoming Professor Emeritus of Chemistry, and a really great guy, for his long-term services in the ACS and his lifetime contributions to energy and fuels. The topics for papers welcomed include, but are not limited to:

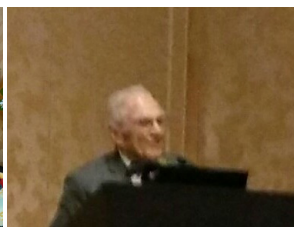
- 1) Clean, efficient, flexible, reliable, and cost-competitive coal-based power generation;
- 2) Chemical looping;
- 3) Pressurized oxy-combustion technologies; and
- 4) Carbon capture, utilization, and storage (CCUS) technologies.

The presenters and co-authors will be invited to submit manuscripts to be published in *Catalysis Today* in this special issue, “Gateway to Novel Energy Conversion Technology In Honor of Dr. E. Gerald Meyer.” All manuscripts will undergo a peer-review process.

*Catalysis Today* Editors and ENFL & SCHB Division leadership look forward to highlighting the “Energy Conversion Tech” related to energy and fuels research. The manuscripts can be submitted for the first round of internal review. Upon selection, the authors will submit the manuscripts through the Elsevier URL “SI: Energy Conversion Tech.” See: <https://www.journals.elsevier.com/catalysis-today/call-for-papers/special-issue-gateway-to-novel-energy-conversion>.



Photos of Gerry Meyer, ACS Fellow, and University of Wyoming Professor Emeritus of Chemistry



## Congratulations to SCHB's Janet L. Bryant, Recipient of the 2020 Award for Volunteer Service to ACS!

Join SCHB in congratulating our Executive Committee member Janet L. Bryant, the 2020 recipient of the ACS Award for Volunteer Service to the American Chemical Society. Janet chairs the SCHB's Planning Committee. Janet will receive her award at the now-rescheduled ACS National Award Ceremony and Banquet on Monday, and deliver her award address on Tuesday, at the 260th National Meeting & Expo's ChemLuminary Awards in San Francisco, CA, in August 2020.



**SAN FRANCISCO SCOOP**

ACS 260th National Meeting

San Francisco, August 16-20, 2020

*Chemistry: From Bench to Market*

SCHB has six symposia scheduled:

*Global Innovation and Entrepreneurship Create Jobs in the Chemical Sector (BMGT++, PRES)*

*Chemical Solutions to Global Climate Issues: Bench to Market (ENFL++)*

*10 Start-Ups To Watch (YCC++)*

*Bench to Market: Funding & Management Considerations (BMGT++)*

*Chemical Business Posters, from Bench to Market (BMGT)*

*Sustainable Green Chemistry: Bench to Market (CELL)*

Abstract submission is open until April 20.

If you have any questions, please contact the symposia organizer, details are at:

<https://callforpapers.acs.org/sanfrancisco2020>

SCHB members Judy Giordan and Janet Bryant are thematic programming co-chairs. For more information, see:

<https://tinyurl.com/acsmppgfall2020>

Stay tuned to our Facebook page for frequently updated content: fb.me/SCHBD and/or follow SCHB on Twitter @ACSSCHB.

See you in San Francisco!

**VOLUNTEER WITH SCHB**

None of SCHB's valuable benefits and activities would have been possible without volunteers like you. If you want to expand your professional network, enhance your leadership skills, or shape the future of SCHB, consider volunteering in a more active role to further SCHB's mission.

Potential roles include Webmaster Assistant, Sponsors Development, Membership Support, Graphic Designer, Assistant Newsletter Editor, or any other ideas you have.

**Find out more about SCHB!**

To find out more about SCHB, membership benefits, events, and how you can contribute, visit the SCHB websites:

<http://acs-schb.org/>

<https://schb.sites.acs.org/>

Listen to Jennifer Maclachlan talk about how SCHB is the home for entrepreneurs in ACS - whether chemists or not!

<https://youtu.be/YxCHgwfOvSg>

**Newsletter Welcome**

**Adam Sussman**  
SCHB Newsletter Editor

As the new SCHB Newsletter Editor, it is an honor and a privilege to introduce you to the Small Chem Biz newsletter. I will always strive to bring the same clarity, organization, and detail to the newsletter as I do to each patent application I prepare for a client. I hope that you will find this newsletter to be informative and easy to navigate. Please find enclosed details about membership benefits, descriptions of upcoming events, and technical programming information, including opportunities for participation and networking. Please take full advantage of the resources and strong network of distinguished chemists and entrepreneurs that SCHB has to offer. If you are interested in highlighting any recent accomplishments or advertising in the SCHB newsletter, please contact me at: [newsletter@acs-schb.org](mailto:newsletter@acs-schb.org). And stay safe and healthy!

## OPPORTUNITY for Entrepreneurs - Start-ups - Small Businesses

### ACS National Meeting Expo Booth at a Deep Discount

**SCHB Members Only! Low-cost Expo Booth Space: \$700 Booth Cost | \$500 Registration**

*This is one of many SCHB membership benefits.*

**Showcase your business in front of 12,000+ chemical professionals, from all chemical disciplines, who attend each American Chemical Society (ACS) National Meeting and Exposition:**

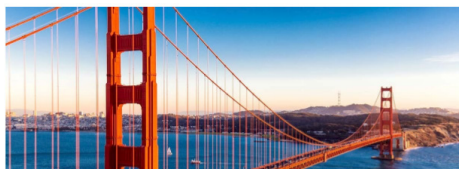
- Experience the promotional opportunities of a professional trade show booth at a special introductory rate, which is a fraction of its usual cost (and also includes a technical-meeting registration to the ACS meeting - a \$490 value) with fully furnished 10x10 ft. booth.
- **Only the SCHB Division can offer you this special discount for a display booth at ACS National Meetings. DON'T MISS OUT!**
- Act now by reserving for San Francisco (Fall ACS National Meeting) - at special rates.
- Contact: Dr. Niteen Vaidya, SCHB Booth Coordinator, at [expo-booth@acs-schb.org](mailto:expo-booth@acs-schb.org).

- Who:** Chemical Entrepreneurs, Start-ups, and Small Businesses.  
**What:** Exhibit space at ACS National Meeting Expositions.  
**When:** Fall, San Francisco (August 16-20); Spring 2021, San Antonio (March 21-25).  
**Cost:** \$700 for SCHB members, who are first-time participants.  
**How:** (1) Must be SCHB Member (if not, Join: <http://acs-schb.org/join-schb/>)  
 (2) Must apply via SCHB.  
 (3) Must be a small business (less than 50 chemical employees).  
 (4) Must have a minimum \$1 million liability insurance policy.

*(Past exhibitors at an ACS Expo do not qualify for this special rate. To discuss: Contact Dr. Niteen Vaidya, SCHB Booth Coordinator, at [expo-booth@acs-schb.org](mailto:expo-booth@acs-schb.org).)*



### ACS San Francisco 2020: From Bench to Market



#### MEMBERSHIP BENEFITS:

Amazing Networking Opportunities: ACS Meetings, Social Media (ACS Network, LinkedIn, Twitter, Facebook)

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Outstanding Programming at National, Regional, and Local Section Meetings

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Receive Monthly e-Blast Newsletter

Receive and/or Be Featured in Semi-Annual Newsletter Small Chem Biz

Eligible for Scholarships at ACS Leadership Institute Courses

**To join SCHB, contact ACS Member Services or contact SCHB Membership Chair. Join today:**

[www.acs-schb.org/contact-us/](http://www.acs-schb.org/contact-us/)

**Membership is FREE for the first year for ACS Members!**

#### FUTURE NATIONAL MEETINGS

**260<sup>th</sup> ACS Meeting**

San Francisco, CA

August 23-27, 2020

*Chemistry from Bench to Market*

**261<sup>st</sup> ACS Meeting**

San Antonio, TX

March 21-25, 2021

*Bonding through Chemistry*

**262<sup>nd</sup> ACS Meeting**

Atlanta, GA

August 22-26, 2021

*Resilience of Chemistry*

**263<sup>rd</sup> ACS Meeting**

San Diego, CA

March 20-24, 2022

## SCHB PATRON MEMBERS

Thank you to all of the **SCHB Patrons**, who as corporate members wish to foster the Division's objectives to aid in the formation, development, and growth of small chemical businesses.

Corporations or organizations wishing to become Patron Members are those that wish to foster the Division's objectives as defined in the SCHB Bylaws II, Section 3. These objectives include the following:

- To aid in the formation, development, and growth of small chemical businesses.
- To address the legal, social, educational, legislative, regulatory, and economic needs of self-employed chemists and ACS members who are employed by small chemical businesses.
- To encourage, promote, and organize personal interaction among members of the Division and other chemists, institutions, or organizations interested in the promotion of free enterprise among chemists.
- To serve as a clearinghouse for information about services available to members engaged in or planning to start small chemical businesses.
- To provide liaison between small chemical businesses needing part-time employees and chemistry students needing income and experience.
- To provide the expertise and experience of its members to the SOCIETY and for the betterment of the public.

Hats off to our Patrons and Sponsors of SCHB events, and their Liaison Members.

### CURRENT SCHB PATRON MEMBERS

- **OSHA Liang**  
Liaison Member: Carlyn Burton
- **Saul Ewing Arnstein and Lehr, LLP.**  
Liaison Member: Peter C. Lauro

### Interested in becoming an SCHB Patron?

Annual Dues: • Patron \$200.

Sponsorship Opportunities: • \$500 • \$1,000 • \$1,500

Annual dues for Patron Members are \$200. An alternate way to be a Patron Member is to Sponsor an event at an upcoming ACS National Meeting at the \$500, \$1,000, or \$1,500 level. Ask any SCHB Officer on how your organization can qualify for Patron Membership. Pay Now via Credit Card (<http://acs-schb.org/patron-membership/>), or (preferably) ask for an invoice by emailing SCHB Treasurer David Deutsch (at [treasurer@acs-schb.org](mailto:treasurer@acs-schb.org)), and pay via check. Further details at: <http://acs-schb.org/patron-membership>.

## MEMBERSHIP

### SCHB Member Spotlight

#### Tyger Scientific Inc.

corporate leadership registered with SCHB for a Booth in Philadelphia.

Founded in 1992, [Tyger Scientific Inc.](#) is one of the world's leading suppliers of specialty organic chemicals and intermediates and provider of Contract Research Service. Tyger has served every phase of fine chemical needs including discovery, lead optimization, process design/optimization, and commercial production.

Tyger is committed to offering specialty chemicals for the pharmaceutical, biotech, and chemical industries ever since its inception in 1992. Tyger specializes in custom synthesis solutions to meet our clients' needs. Tyger develops methods and manufacture compounds based on required structure, purity, and quantity. If you have a product and would like to discuss in further detail, Tyger invites you to do so with full confidence.



**Business-related SWAG!!!**



Make sure you pick up your business-related SWAG at the SCHB Expo Booth in San Francisco!





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**Impacts and SCHB Response** by Ryan Littich, Ph.D., SCHB Membership Chair

No matter the industry sector, it is difficult to gauge the breadth, depth, and duration of an economic downturn. For SCHB members, as individuals working in the allied chemical industries and academia, our most immediate cues are the realities we and our colleagues confront, in our respective organizations.

To shed light on what may be in store for our field, *Chemical & Engineering News* recently summarized an analysis from Moody's Investors Service ("MIS").<sup>1</sup> Moody's rated different industry segments in terms of their relative economic exposure due to the coronavirus pandemic. Many of these categories resonate with what we hear in the market and news media. And many of the sectors represented in Table 1 below are associated with the chemical enterprise, whether as a product or service, or in their supply chain. But how might our colleagues in ACS' Small Chemical Business Division be impacted, specifically?

**Table 1.** Moody's Investors Service's Coronavirus Economic Heatmap<sup>1</sup>

Sector	Exposure	Sector	Exposure	Sector	Exposure
Apparel	High	Manufacturing	Moderate	Defense	Low
Auto manufacturing	High	Media	Moderate	Equipment	Low
Auto suppliers	High	Metals and mining	Moderate	Rental	Low
Consumer durables	High	Chemicals	Moderate	Packaging	Low
Gaming	High	Steel	Moderate	Real estate	Low
Lodging, leisure, tourism	High	Technology hardware	Moderate	Food retail	Low
Passenger airlines	High	Oil and gas	Moderate	Telecommunication	Low
Shipping	High	Beverages	Moderate	Waste management	Low
Nonfood retail	High	Agriculture	Moderate	Construction	Low
Services	Moderate	Pharmaceuticals	Low		

SCHB's Membership Committee has cross-referenced our community's industry affiliations<sup>2</sup> with the analysis provided by Moody's Investors Service (Table 2, next page). By our estimates, approximately 48% of our colleagues were represented in the MIS heatmap. Thirty-nine percent (287) in our extended membership family support the economy in Moderate exposure categories. Twenty-seven percent (203) of SCHB membership work in sectors that were not assessed by Moody's - in government, environmental/water, and academic institutions. Another 25% (185) of SCHB members either did not register sector information with ACS (112), or identified as "Other" (58), or "N/A" (15). No matter where we each contribute, this is a time when we must exercise our network to support one another.

In answer to the economic uncertainty imposed by the COVID-19 pandemic, SCHB has consolidated a list of federal and state financial resources (e.g., grants, loans, investment capital). The list, which we continue to expand, can be found on the SCHB website, at <http://www.acs-schb.org/business-to-business/>. We have structured the list as a Google document and invite our colleagues to add resource links that will help us all weather this challenge together. However, our list does **NOT** contain details on support offered to companies and individuals under the CARES Act stimulus. We encourage our members to follow reputable summaries of these benefits. We wish you all safety and good health.

<sup>1</sup>A.H. Tullo, *COVID-19 coronavirus weighs on economy, chemicals*, 98(11) CHEM. ENG'G NEWS 12 (March 17, 2020), <https://cendigitalmagazine.acs.org/2020/03/18/ocvid-19-coronavirus-weighs-on-economy-chemicals/content.html>. <sup>2</sup>American Chemical Society Demographics Report: D531 - Small Chemical Businesses Division. Data current to February 29, 2020.

**Table 2.** SCHB's Industry Affiliations in relation to Moody's Investor Service Economic Heatmap

Sector	Exposure	Members (#)	Members (%)	ACS Industry Group
Nonfood retail	High	10	1%	Retail/Wholesale Trade
Services	Moderate	39	5%	Independent Laboratory
Services	Moderate	83	11%	Independent Consulting
Manufacturing	Moderate	79	11%	Manufacturer - Other
Chemicals	Moderate	65	9%	Manufacturer - Industrial Chemicals
Oil and gas	Moderate	10	1%	Manufacturer - Petrochemical
Beverages	Moderate	7	1%	Manufacturer - Food/Beverage/Flavors
Agriculture	Moderate	4	1%	Manufacturer - Agriculture
Pharmaceuticals	Low	24	3%	Manufacturer - Pharmaceutical
Pharmaceuticals	Low	24	3%	Manufacturer - Biotech/Life Sciences
Construction	Low	9	1%	Engineering/Construction
Government	Not Rated	21	3%	Government
Environmental/Water	Not Rated	10	1%	Manufacturer - Environmental/Water
Hospital/Clinic	Not Rated	6	1%	Hospital/Clinic
Academic Institutions	Not Rated	166	22%	Academic Institution
		112	15%	No Response
		58	8%	Other
		15	2%	N/A (Retired?)

## Intellectual Property Considerations in the Face of COVID-19

by Adam D. Sussman, J.D., Ph.D.‡, SCHB Newsletter Editor

The impact of COVID-19 on the global economy and on businesses both large and small is already evident. As the U.S. continues to try to contain the virus through the implementation of social distancing and shelter-in-place orders nationwide, the virus' toll on the economy has only escalated. Understandably, the pressures on small business owners and management to weather the storm and stay afloat are particularly daunting. Therefore, it is important for small businesses to take a close look at their intellectual property pipeline and assess opportunities for patenting their most important inventions *now* to increase the value of their portfolios going forward.

**Record of Invention (“ROI”).** At a time when the health and safety of employees is at a significantly higher risk, it is crucial that owners and managers require that their researchers and innovators are consistently preparing and updating Record of Invention (“ROI”) paperwork for any new discoveries, as well as logging any associated data—ideally in real time, or as quickly as practicable. Not maintaining current documentation can result in unforeseen consequences. For example, more than once in my own career, I have helped a client prepare a patent application, where at least one of the inventors resigned from the company under *amicable* terms yet subsequently worked for a competitor, and therefore became reluctant or unwilling to flesh out details of discoveries still owned by the company.

**Provisional Patent Applications.** For small businesses that have yet to protect all of the discoveries of their innovators (regardless of whether the inventions have been captured in formal ROI documents or not), it is important to consider having at least a provisional patent application—

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if not a nonprovisional utility patent application—prepared and filed as soon as possible. This is because a valid patent issued from a patent application for a novel invention grants the patent owner the right to enforce a monopoly over the claimed invention of a new and useful process, machine, manufacture, or composition of matter, or improvement thereof, through the United States federal courts for up to 20 years from the filing date of the nonprovisional patent application or an earlier related application.<sup>1</sup>

A provisional patent application provides inventors the opportunity to file a lower-cost first application as a means of establishing an early effective filing date in a patent application, and permits the term “Patent Pending” to be applied in connection with the invention. Claims and an inventor’s oath or declaration are not required for a provisional application, which is also neither published nor examined. The filing date of a provisional application is the date on which the written description and any drawings, if necessary, are received in the United States Patent & Trademark Office (“USPTO”) and the filing fee is paid. An applicant then has up to 12 months to file a nonprovisional utility application for the patent.

The claimed subject matter in the later-filed, nonprovisional application is entitled to the benefit of the filing date of the nonprovisional application if it has support in the provisional application. Therefore, experienced patent attorneys will aim to include as much information supporting the claimed subject matter in a provisional application as inventors have available at the time in an effort to provide support for—and thereby obtain—the earliest effective filing date possible for as much claimed subject matter as possible. A nonprovisional application for a patent is entitled to the benefit of the filing date of more than one provisional application, so an applicant may choose to file multiple provisional applications over the course of 12 months as the subject matter develops and claim the benefit of each provisional application.

A provisional patent application provides several benefits to small businesses that are actively preparing for an economic downturn. A provisional application allows small businesses to initiate patent protection yet delay the majority of patent prosecution capital output for almost a year. Further, small entities (businesses with 500 employees or less) and businesses that qualify as “micro entities” are entitled to reductions in most patent fees of 50% and 75%, respectively.<sup>2</sup> By filing a provisional patent application based on ROIs currently or soon in hand, a small business can quickly begin the process of protecting and monetizing its patentable intellectual property. Beginning the patenting process may also help to avoid any subsequent intellectual property theft or unauthorized disclosure. Provisional patent applications can also include prophetic examples, disclosing what innovators expect would be novel results or data resulting from experiments that may be completed within the subsequent year; prophetic examples may be crucial to protect work when innovators who were mid-development were confronted by social distancing policies and could not update data records or ROIs before shutting down the laboratory. Businesses seeking venture capital funding also continue to benefit from signaling patent applications.<sup>3</sup>

Being in the midsts of a global pandemic is even more reason to think strategically and efficiently about how to leverage IP innovations. Fortunately, with today’s digital technology capabilities, many experienced patent attorneys with chemical expertise can work with small businesses remotely to review ROIs and expediently and cost-effectively prepare and file provisional patent applications. By beginning to protect key inventions now, small businesses can emerge from this crisis with more monetization and funding options.

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<sup>2</sup>For comprehensive information regarding patents and the patenting process, visit <http://www.uspto.gov/patents-getting-started/general-information-concerning-patents>. <sup>3</sup> See *id.* <sup>3</sup> Rebeca Seitz, *How To Raise Venture Capital: What You Should Know Before You Start*, FOUNDR.COM, Mar. 20, 2020, <http://foundr.com/how-to-raise-venture-capital>.

by Judy Giordan, Mark Vreeke, and Sid White

Headlines abound with tough investment news from the world’s stock markets—what does this all mean for investors in start-ups? It depends on the RISK tolerance and AGILITY of the investor, HOW the investors come together to determine investing, and the FOCUS and STAGE of the startup.

**For investors** who are strategic or institutional, and traditionally require all hands on deck to make decisions on the investment and in due diligence, things can get slow. And with spring being a traditionally higher investment season, those ventures raising first rounds may be further funding-challenged, while follow-on rounds may have a better chance of moving ahead. On a brighter note, VCs and angel investors sitting on dry powder that can move quickly and are more risk tolerant will move ahead. But with the reduction in funders, negotiations may get tougher, motivated by finding better deals, valuations, and terms with companies that employ business models emphasizing cash efficiency and with long runways to get past the next 12+ months.

For an angel investor, the ability to be agile also comes from the way in which deals are screened, vetted, and decided upon. Angels, and angel networks that employ primarily remote interaction, can keep chugging along in our ever-more virtual world. Those that use exclusively face-to-face meetings, which are the vast majority, are scrambling to figure out how to vet deals.

Enter the Chemical Angel Network (“CAN”) ([www.chemicalangels.com](http://www.chemicalangels.com)). CAN was founded as, and has remained, a virtual angel network—where companies apply online using the GUST platform, get the benefit of a virtual coaching session with Mark Vreeke, who is a CAN deal screen lead, and are vetted and selected by CAN members to present at the monthly CAN meetings—all online and virtual. CAN does additionally meet face-to-face at ACS, AICHE, and MRS national meetings. Because of CAN’s virtual platform, companies scheduled to present at the Philadelphia ACS meeting, including Mussel Polymers, Sonata Scientific, and Innovasonic, did not miss their chance.

**For start-ups involved with markets in value chains for materials, med device, or IT healthcare**, there may be a growing interest in investing to help onshore materials and toolup to act quickly domestically, while maintaining offshore capability and supply chains. For others with broader STEM-based solutions, there will always be interest in those aligned with sustainability efforts. But with fewer funders, start-ups need more than a good “pitch” and “hockey-stick” revenue plan. Ironclad and validated business cases with defined beachhead markets, and potential customers underpinned by validated go-to-market strategies, all acting as the bases for defensible and efficient business models and plans, will be key.

**Support of existing portfolio companies** is equally critical. The March 27 Angel Capital Association Webinar speakers from MI5 and Frontier Angels underscored that start-ups in healthcare and IT/TECH are moving ahead well. Headwinds for companies in restaurants, events, and those that rely on trade shows for customer leads, are considerable.

In an attempt to ease the challenges for start-ups, support and resources from local and federal sources including SBA, cities, and states are stepping in with programs to provide funding to stopgap potential funding and communication losses. Despite this potential support, CEOs are urged to plan for a downturn over a longer timeframe of 12+ months by triaging investment/spend decisions, slowing spend to extend runway, and aggressively seeking out federal and local support. And remember—for a start-up, business as normal never exists.

STAY TUNED for the next article in this series—Chemical Angel Network at the San Francisco Meeting.

by Jim Skinner, SCHB Chair-Elect

As the Small Chemical Business Division of the ACS, we understand the challenges of being part of a start-up, early stage, or small company. Many of us on the Executive Committee are or have been in your shoes during prior crises, such as the 2008 recession, when many small companies perished in a short period of time.

Regardless of the compelling nature of their technologies, the possible commercial success of which was backed by their significant investments of time and money, these companies ceased to exist because they did not act quickly enough. As is the case now, they needed to adapt to the current environment with a new strategic plan. The current business plan is no longer appropriate or viable.

Certainly, your small company must immediately implement cash conservation measures, but it is far more important to stand back and develop a strategy that meets the current environment:

- Working closely with your investors, your Board of Directors, and your Scientific Advisory Board, develop and implement the new strategy and business plan; and
- As part of the strategic planning process, assess what the investment requirements are under the new circumstances in which you find yourself—this step is paramount before making irrevocable decisions to reduce certain expenses, personnel, programs, etc.

With the revised strategic plan in place, you can then begin to consider the following:

- Rationalizing the product or service development plans with a view to narrowing the research and/or development program in order to focus on those projects offering the greatest return for the least investment of scarce resources—time, money, and people;
- Being fully cognizant of support, such as the new CARES Act that may provide the necessary funds to sustain the business, including key personnel;
- Restructuring your workforce, as painful as that is for everyone;
- Evaluating the role of, and need for, outside personnel or consultants;
- Extending payables;
- Accelerating receivables, if there are revenues—either by factoring receivables, or providing more favorable, quick payment terms; and
- Possibly downsizing the facility.

By studiously adhering to the solid business principles of strategic planning and creating a business plan that meets the new environment, your small business has its best chance of surviving this health pandemic and economic crisis.

by Neal Langerman, SCHB Member; Owner, [Advanced Chemical Safety](#)

The SARS-CoV2 pandemic has affected each of us, personally, and across our extended families.

While you have heard many suggestions on how to keep healthy, here are a few, in very practical terms. Please follow the general recommendations of the health professionals in your jurisdiction, which are widely publicized:

- Stay at home. All of the evidence clearly shows that self-imposed isolation is the most powerful act you can take to protect yourself, your family, and the community.
- If you must go out, wear a facial barrier at all times. This can be a scarf, a bandana, a dust mask, or any similar mechanical barrier. This will accomplish several positive goals. It will remind you ***NOT TO TOUCH YOUR FACE***. It will protect others from any viral load you may be shedding. It will reduce your exposure to airborne virus by 10-50%, thus helping you.
- Maintain at least a 6-foot radius from any other person except your immediate family. Stay back from cashiers and package delivery servers. If someone encroaches on your space, ask them to move back, or move yourself. Stay away from anyone coughing or sneezing. Avoid face to face conversations; talking increases the production of micro-droplets from your mouth about 10-15-fold.
- Pay electronically. There are anecdotal suggestions that the paper money supply could carry the virus, though this has not been proven at this time.
- WASH your hands early and often. Impervious gloves, if used properly, will help. Put the gloves on before you get out of your car, or enter a store, if walking. Leave them on. As soon as you return to your car, wipe the exterior of the gloves with Purell®, 0.5% bleach in water, or 0.5% hydrogen peroxide in 70% alcohol. Remove the gloves by slipping a finger under the cuff and inverting the glove. Try not to touch the outside surface. Dispose of them. Disinfect your hands with one of the above-mentioned solutions.
- When you get home, wash your hands. Wipe down any surface you touched with one of the above-mentioned solutions. The bleach solution is best.
- If you receive packages at home, consider the outer packaging contaminated. Handle it with gloves. Dispose of it promptly in recycle or trash. Wash your hands after handling the outer package.

### **Bleach Sanitizer Recipe**

Mix 4 teaspoons household bleach with 1 quart of water. This corresponds to 4 tablespoons per gallon. Pour any unused dilute solution down the drain after three days, and make more fresh sanitizer.

### **Alcohol-Peroxide Recipe**

Add 1 ounce of water to 12.5 ounces of 90% isopropyl alcohol and stir. Add 2.5 ounces of hydrogen peroxide (H<sub>2</sub>O<sub>2</sub>, 3% drugstore variety is sufficient), and mix well. This keeps for about 1 month. If substituting any decent water-soluble hand cream (Jurgens, etc.) for the 1 ounce of water, you have a homemade version of Purell®. Use glycerin in place of the water if possible.