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**5 Most Cited Articles of JIMB in 2018:**

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Letter from the Editor-in-Chief

“Periodicals provide a historical record of past ideas, opinions, accomplishments, and social problems.” – quote taken from a Google search for the term periodical on June 1, 2020.

What you are currently reading on paper or a screen device is truly a historical moment in time. Typically, an issue of SIMB News would have a feature article covering a pertinent topic of interest or providing information on people who have made great contributions to our discipline. In addition, there would be relevant news (SIMB or more broadly) that the membership can use, an insightful book review, and a calendar of events. These past issues reflect what was of interest at the moment in time of publication. This issue was specifically prepared to reflect this difficult moment in time.

As the initial preparation steps of this issue were launched, people around the world began to realize that we were experiencing a true pandemic and its implications. COVID-19 caused many of us to abruptly step away from our work places and learn to conduct our occupations at home in a virtual work/academic environment. This was done to help protect our vulnerable populations, such as the elderly and those who possess underlying health conditions, and to prevent our health care systems from being overburdened. The feature article in this issue provides the experiences of a number of our fellow members in their own words. I am very grateful they were willing to share these stories with us.

Our community has not been unscathed by COVID-19. We learned that Arny Demain passed away on April 3rd, in part due to COVID-19. I first met him at a Gordon Conference when I was a graduate student. Most all of us have fond memories of Arny and great respect for him. An In Memoriam for Arny written by Stuart Dezenhall, Drew University, is printed in this issue.

The coronavirus pandemic has also exposed and exacerbated health care and support system gaps in many communities around the United States and beyond. As people were beginning to realize that African-American citizens were dying at higher rates from COVID-19 than white citizens, George Floyd was asphyxiated under the knee of a police officer. No matter how one feels about the protests and the riots caused by people in response to Mr. Floyd’s and other African Americans’ deaths, it is clear that racial equality has not been achieved and there is a long way to go. It is reassuring to know that the SIMB values diversity and has taken a number of steps to help ingrain this value into the Society’s fabric.

On a lighter note, we have not included our typical calendar for this issue. Things are just in too much flux. Hopefully, things will be more predictable once the next issue comes out and a calendar will be published. However, even during less chaotic times, always check the websites of the events that you are interested in to receive the most up to date information. In fact, the SIMB website is the place to go!

Overall, my feelings during this moment in time have probably been very similar to yours even if our experiences have differed. One notable experience that many in academia have had was to immediately stop meeting with students. I for instance had to convert my in-person class to an on-line class over a weekend. I kept meeting my students at the same time for class over Zoom and received a good response. I also ensured that a video of each class session was available after class was held. This was important as I learned that some of my students had to immediately get jobs that caused conflicts with the course’s meeting time. In addition, as part of my responsibilities as Associate Dean for Research, I had to help with the shut-down of the research labs in our college. It was very weird going from actively promoting research to closing it all down. Thankfully, since we are in a rural community which has not been impacted much, we were able to start making exceptions for essential research activities and allowing people to return to their labs. It’s been a slow and very careful process. And, I’ll admit, I’m a bit envious of the people that I’ve helped in opening their labs while my lab is still currently shuttered.

As our lives come to our “new normal”, please let me know how you have adjusted. If interested, your experiences could be developed into a short article for the next issue of SIMB News.

Stay safe and well. Be considerate to yourself and others. We truly are in this together.

Sincerely,

Melanie R. Mormile

Editor-in-Chief, SIMB News

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Call for abstracts opens
September 2020
SIMB Strategic Plan

Vision
To be the leading international professional society in industrial microbiology and biotechnology

Mission
Empower our members and others to address current and future challenges facing humanity using industrial microbiology and biotechnology.

Core values
Scientific excellence (innovation, rigor, multi-disciplinary science and engineering, translational technology)
Leadership (collaboration, continuity, advocacy)
Diversity (promotion, inclusion, openness, internationality)
Responsibility (ethics, integrity, transparency, societal impact)
Communication (education, information, outreach, responsiveness)
Passion for science (fun, inspiration)

Goals
1. Provide information to increase global knowledge, understanding, and application of industrial microbiology and biotechnology.
2. Organize preeminent meetings in our core scientific disciplines.
3. Publish the leading journal in industrial microbiology and biotechnology.
4. Promote and increase diversity in all aspects of the Society, with membership open to anyone interested in our vision and mission.
5. Enhance the value of membership in the Society for both individual and corporate members.
6. Offer educational/professional development opportunities for the membership and the general public.
7. Communicate our activities and accomplishments in industrial microbiology and biotechnology to both the global scientific community and the general public.
8. Expand our global reach.
Important COVID-19 Update for the SIMB Annual Meeting

I’m writing to let you know that the SIMB Board of Directors has voted to cancel the Annual Meeting scheduled in August in San Francisco. The decision was made based on predicted infection rates for COVID-19 over the summer and the uncertainty of the safety of air travel for the foreseeable future. As we work to continue to deliver our mission, we have had one priority firmly at the forefront: maintaining the health, safety, and wellbeing of our community.

While I share in your disappointment, I hope you agree that this is the most responsible course of action. It is the first time in the 70 year history of SIMB that we have cancelled the Annual Meeting but these are extraordinary times calling for extraordinary caution. I share in the disappointment of the program committee, conveners, speakers, poster presenters and registered attendees and want to thank the program chair, Adam Guss, for all his hard work in organizing the meeting. Adam has invested his formidable intellectual ability in putting together a fantastic, forward looking, cutting edge scientific program and at the request of our president-elect Steve Decker, he has agreed to serve as Program Chair for the 2021 meeting. We hope to keep many of the conveners and speakers on board. We will announce the winners of our SIMB Awards in the next few months and recognize the winners, hopefully at next year’s annual meeting.

I want to express my gratitude on behalf of SIMB to the many people who have kept the Society functioning as we navigate this stressful situation. First and foremost to our Executive Director, Chris Lowe, and our office staff, Jennifer Johnson, Tina Hockaday, Espie Montesa, and Suzi Citrenbaum. They have worked tirelessly to ensure we stay on track. Chris has negotiated with the hotel to eliminate any financial burden to the Society for the cancellation of this meeting, an amazing accomplishment. SIMB will refund all registration fees so far collected and send a message to those who have made reservations at the hotel to cancel them and we are well ahead of deadlines to do so. On behalf of the Society, Chris also applied for and was awarded a stimulus grant to protect us from financial hardship. The loss of revenue to the Society will be covered by that and our cash reserves so we are OK financially.

Our Board of Directors, Priti Pharkya, Laura Jarboe, Michael Resch, Katy Kao, Steve Van Dien, Steve Decker, Tiffany Rau and Betty Elder have been responsive to requests for votes and provided thoughtful advice as we worked through the issues facing us over the last few months. Special thanks to our Treasurer, Laura for providing guiding information about our finances.
Finally, let me take a moment to wish you, your loved ones and colleagues good health. I hope you are well and taking precautions to stay that way. One of the few upsides of this crisis is the remarkable ways in which people have come together to help each other deal, not only with illness, but in adapting to dramatic differences in our daily routines. A special nod to those of you educating children, providing daycare all while trying to work full time from home! Over the last few months, I have witnessed countless examples of altruism, compassion, resilience, and determination on the part of members of my own community and our larger scientific community, revealing the best in us. Several of my former students are front line health care workers and there is no way to express our amazement and gratitude for what they do.

This virus defies the rules even for coronaviruses and while there is no way to predict the course of the infection we are learning a great deal. There is clearly a genetic component to susceptibility that no one understands. Apparently similar people, the same (sometimes very young) age with the same health profile vary dramatically in their response. Some are asymptomatic and others severely affected. The good news is that the mutation rate for the virus is very low. Unlike most reverse transcriptases, the one in COVID-19 has a proof-reading function that reduces the incredibly high mutation rate seen in other RNA viruses. As scientists the opportunity to learn from this situation is not only important but hopefully useful. With the entire scientific world focused on vaccine development, we can be hopeful that one will be generated soon. I recently learned that 16,000 people world-wide have volunteered to be exposed to the virus in a challenge placebo group to test emerging vaccines! World wide disasters like this remind us that we are part of a world community and we are truly all in this together. Until we can meet again, let us turn out attention to helping each other in any way we can. As microbiologists we have an important role to play, not only in COVID-19 research but in explaining to our friends, family and neighbors exactly what viruses are and helping them understand a tidal wave of often confusing information. Especially now, our ability to reach out to our communities as science educators is our own special contribution.

Be safe and stay well. With warmest regards,

Jan Westpheling, President

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**November 7–10, 2021**

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2020 Board of Directors Election Results

Board of Directors election results for 2020

Congratulations to the winners of the 2020 Board of Directors election. The incoming officers will begin their terms this summer.

President-elect – Noel Fong, Nucelis

Treasurer – Laura Jarboe, Iowa State University

Director – Rob Donofrio, Neogen

Thanks to all who participated in the 2020 election.
USDA Soliciting Stakeholder Input on Agricultural Innovations

The United States Department of Agriculture (USDA) is requesting written input on objectives and opportunities leading to research and product goals to facilitate “transformative breakthroughs to enable U.S. agriculture to meet the Department’s goal to increase agricultural production by 40 percent to meet the needs of the global population in 2050 while cutting the environmental footprint of U.S. agriculture in half.”

This effort is part of USDA’s Agricultural Innovation Agenda, the Department’s commitment to the “continued success of American farmers, ranchers, producers, and foresters in the face of future challenges.”

Based on a 2019 National Academies of Sciences, Engineering, and Medicine report, Science Breakthroughs to Advance Food and Agricultural Research by 2030, USDA identified four innovation clusters with potential for transformative innovation: genome design, automation, prescriptive intervention, and systems based farm management. Stakeholder input will inform USDA as it works to develop a comprehensive strategy to guide public-sector research objectives and inform private-sector product development in order to maximize the U.S. Agriculture sector’s continued ability to meet future demands.

Newsworthy

House Approves Next Coronavirus Stimulus, Includes Research Funding

The U.S. House of Representatives passed a new coronavirus relief package, The Heroes Act, on May 15, 2020. If passed by the Senate and signed by the President, this will be the fifth measure adopted by Congress to respond to the COVID-19 pandemic.

The $3 trillion stimulus bill includes $1 trillion in assistance for state, local, territorial, and tribal governments; $75 billion for coronavirus testing, contact tracing, and isolation measures; emergency supplemental appropriations to federal agencies; another round of direct payments; and $200 billion for a "Heroes' fund" to provide hazard pay for essential workers.

The bill includes funds to support coronavirus-related research. The National Institutes of Health would receive $4.721 billion to "expand COVID-19-related research on the NIH campus and at academic institutions across the country and to support the shutdown and startup costs of biomedical research laboratories nationwide." $4 billion would be directed to the Office of the Director, of which $3 billion would be available for "offsetting the costs related to reductions in lab productivity resulting from the coronavirus pandemic or public health measures related to the coronavirus pandemic" and the remaining $1 billion would "support additional scientific research or the programs and platforms that support research." The National Institute of Allergies and Infectious Diseases would receive $500 million and the National Institute for Mental Health would get $200 million, “to prevent, prepare for, and respond to coronavirus.”

The National Science Foundation would receive $125 million for grants to "prevent, prepare for, and respond to coronavirus.” The bill allocates $1 million for a study on “the spread of COVID-19 related disinformation.” NSF could also transfer up to $2.5 million of its allocation to its “Agency Operations and Award Management” account for management, administration, and oversight of the funds provided.

Other research related highlights from the relief package include:

» $40 million for the U.S. Geological Survey for biosurveillance and research related to wildlife-borne disease.

» $50 million for the Environmental Protection Agency for environmental justice grants, including those investigating “links between pollution exposure and the transmission and health outcomes of coronavirus in environmental justice communities.

» $8.4 billion for higher education institutions “to defray expenses (including lost revenue, reimbursement
for expenses already incurred, technology costs associated with a transition to distance education, faculty and staff trainings, and payroll) incurred by institutions of higher education.

The bill would provide $71 million to the U.S. Fish and Wildlife Service “to support activities related to wildlife-borne disease prevention, with $50 million for grants through the State and Tribal Wildlife grant program.”

The Institute of Museum and Library Services would receive $5 million to support libraries and museums with expenses associated with the pandemic, including operational support and providing technology and resources for their communities.

Republican lawmakers in the Senate have said they do not consider the House’s plan a serious legislative endeavor, according to E&E News. Some Democratic lawmakers have indicated that the bill is only a starting point for negotiations with the Senate and White House on government measures that need to be taken to respond to the pandemic. Senate Majority Leader Mitch McConnell (R-KY) criticized the bill as a “totally unserious effort” and a “Democratic wish list.” House Republicans characterized some of the research allocations as “wasteful spending.”

CALL FOR 2021 SIMB WORKSHOPS

Interested in presenting an SIMB Workshop in conjunction with one of the 2021 SIMB Meetings?

Apply here: www.simbhq.org/education

DEADLINE: OCTOBER 15, 2020
Newsworthy

House Relief Package Includes Scientific Integrity Amendment

The pandemic relief package, the Heroes Act, passed by the House on May 15, includes provisions of a scientific integrity bill that would protect federal scientists from political interference.

The Scientific Integrity Act or SIA (H.R. 1709), sponsored by Representative Paul Tonko (D-NY), was approved by the House Science, Space, and Technology Committee in October 2019. Provisions of the legislation, which currently has 232 bipartisan cosponsors, were attached to the latest coronavirus relief measure as a manager’s amendment.

SIA requires federal agencies that fund, conduct, or oversee scientific research to adopt and enforce clear scientific integrity policies. The bill would prohibit the government from suppressing agency scientific research findings and intimidating or coercing individuals to alter or censor scientific findings.

Earlier this month, Senators Brian Schatz (D-HI) and Richard Blumenthal (D-CT) and Representatives Tonko, Eddie Bernice Johnson (D-TX), Haley Stevens (D-MI), and Alan Lowenthal (D-CA) sent letters to Senate and House leadership urging the inclusion of the SIA provisions in COVID-19 related legislation. The lawmakers wrote, in part: “Science underpins the response to the COVID-19 crisis. Whether it is a government official trying to help impacted citizens; a business owner trying to keep employees safe; or parents protecting their family, everyone needs access to the best and most up-to-date scientific information available. Scientific integrity ensures the quality and reliability of the federal science that governments, businesses, and individuals rely on, and we therefore request that you include H.R. 1709, the Scientific Integrity Act, (the SIA) into the next COVID-19 relief package.”

“I think everyone particularly in the time of a pandemic can see how important it is to hear from the scientific experts directly, without political filters,” said Andrew Rosenberg, Director of the Center for Science and Democracy at the Union of Concerned Scientists, according to The Hill. “The principles are that scientists have the right to speak out about their science and political officials can’t stop them from doing so.”
In Memoriam: Arnold Demain

It is with sadness that Drew University reports the passing of Dr. Arnold (Arny) Demain, a research fellow of the Research Institute for Scientists Emeriti (RISE) program. Demain, a world-renowned microbiologist, passed away peacefully on Friday, April 3. He was 92. From 2001 until the time of his passing, Dr. Demain mentored Drew students in his field of expertise as part of the RISE program, which connects undergrads with retired industry leaders in the lab.

“Arny was a great scientist, mentor, colleague and friend,” said RISE Director Vince Gullo. “His contributions to the scientific community were enormous. Arny had a major impact on everyone who had the privilege to know him. He will be missed by all.”

Prior to joining the Drew community, Dr. Demain was a professor at MIT and founded and led the department of fermentation microbiology at Merck & Co, Inc. Demain earned his Ph.D. from the University of California in 1954. During his career, he published more than 500 papers, co-authored 14 books and earned 21 U.S. patents.

Demain received two honorary degrees during his time at Drew, including an honorary Bachelor of Arts degree at the 2018 Commencement for “his extraordinary contributions to the research of Drew’s undergraduate community.” Demain, then 90, was lauded as “one of the world’s leading industrial microbiologists” who was “constantly on the forefront of industrial microbiology and biotechnology.”

In 2016, Demain was honored at the annual meeting of the Society for Industrial Microbiology and Biotechnology for his six-decade career in the industry. “His own personal accomplishments are well documented,” said RISE fellow Neal Connors at the time. “But they don’t tell the whole story,” he added. “What people don’t necessarily see is the impact he’s had on people in the industry. He’s doing at Drew the same thing he’s done in the past, but at a smaller venue and with a younger group of scientists.”

Written by Stuart Dezenhall for Drew University. Reprinted with permission.
JOIN SIMB AT THE NEW AUSTIN MARRIOTT IN DOWNTOWN AUSTIN FOR THE 70TH SIMB ANNUAL MEETING

AUGUST 8-11, 2021
AUSTIN MARRIOTT
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2021 Annual Meeting Chair: Adam Guss, ORNL

Call for abstracts opens October 2020

WWW.SIMBHQ.ORG/ANNUAL
COVID-19 Pandemic Experiences
The impact of the COVID-19 pandemic is still unequivocally changing the world around us as this feature article is being prepared. In recognizing that this was to truly have a historical impact, a number of SIMB members were approached for their willingness to share their experiences of how the pandemic has affected them. Their input published in this issue of SIMB News serves as a representative snapshot of this moment in time of the first phase of the pandemic. Here is a collection of their heartfelt stories that were gathered from early April to the beginning of May 2020.
MICHIGAN STATE UNIVERSITY’S BIOECONOMY INSTITUTE DURING COVID-19

Susanne Kleff

The operations of Michigan State University’s Bioeconomy Institute (MSU BI), like most organizations, were not immune to the effects of the COVID-19 pandemic. Our state was one of the early hotspots in the pandemic, and our Governor and the University were wise in setting and communicating rules for essential and non-essential services to slow the spread of the coronavirus. MSU BI routinely works with a diverse set of clients across many biotech sectors, including agricultural, industrial, and small molecules. Our specialties are in fermentation process development, pilot scale fermentations, product recovery, and chemical modifications—much of it involves hands-on work with fermentation equipment, media preparation, samplings, etc. With our work falling into the non-essential category, we proceeded through an organized shutdown over a three-day period.

Being part of one of the largest research universities in the world, our group was well positioned with access to technologies for all employees to foster team communications, contact, and to work-from-home with a paycheck or given options of family leave or paid sick time. We are grateful and fortunate that we do not have to suffer and worry immediately about financial hardship on a personal level.

Our new “normal” is not new to readers: MSU BI employees are all working remotely from our homes. While we cannot run equipment, we have spent our temporary shutdown maintaining contact with our co-workers and clients to set us up in the best possible way for our eventual return. Our team can access our records remotely, we therefore can perform analyses of completed processes, prepare records and schedules for fermentations and processes we presume to run upon re-opening. We have also used this time to reflect on how to improve upon previous work and make adjustments to be better organized in the future. As part of this we migrated all our digital documents to a new system, we are reorganizing and streamlining our system for easier navigation. We look for common rules in formatting and capturing information, instructions and to eliminate silos within the organization. We also hone our personal development by participating in online courses. While Zoom and Microsoft Teams meetings have helped keep our spirits up during this time of isolation, it doesn’t fully replace those seemingly spontaneous human interactions, the hallway discussions and jokes, and we miss the in-person interactions.

Our concerns go out to our clients, between some whom we know well and others only by voice on the phone. We understand and care for their businesses and are worried about their deadlines. We remain hopeful they can weather this invisible storm, personally and professionally, and most importantly we wish them good health.

On a personal level, like many of us, I sometimes cannot escape the feeling of isolation, helplessness, and also some disappointment with myself that I cannot think of any new ideas other than sewing facemasks for our community and staying home to “flatten the curve.”

Susanne Kleff is a Project Manager and Senior Scientist at the Bioeconomy Institute at Michigan State University, Lansing, Michigan. She is also the Chair of the International Outreach Committee for SIMB.
LIFE AS AN ISOLATED COLONY

Noel Fong

I miss my lab mates and the spontaneous exchange which propels science. I miss the routine and rituals that surround the work - the commute, multiple trips to the coffee machine, even the meetings. As most of what I do is write proposals and manage my group, the work and deadlines are much the same. Being away from distractions has made it easier to do my work, but even with all the Skype meetings, it’s lonely. However, through those calls with everyone at home, we’ve gotten glimpses into each other’s lives, like how their living rooms are decorated, or loving pets that jump on them during the call.

Working at home, it is harder to define separation between work and home life, as the visual cues aren’t there, and there are different distractions at home, like 2 cats who now think that I am always available for their needs.

As much as I wish it had not happened, this pandemic has provided a “Control-Alt-Delete” message for the world and our fast-paced culture. I have been forced to step back and see the ways that our hurried lives have not been healthy for society. I now sleep and eat better, and the house is even cleaner! I will go back to work with gratitude for many things in our lives we took for granted.

Noel Fong is the Director of Strain Development at Nucelis, San Diego, California. She is also the President-Elect of SIMB.

ESTABLISHING A NEW COMPANY AS THE COVID-19 PANDEMIC HIT

Steve Van Dien

As a founder of a small biotech company, I have plenty of things to be concerned about. And until a couple months ago, the threat of a global viral outbreak was never one of them. I lived in Japan during the SARS epidemic nearly 20 years ago, and witnessed how it seemed to disappear from the public eye nearly as quickly as the fear of it had spread. I figured the coronavirus would be the same thing; another virus outbreak in China, with a few isolated cases throughout the rest of the world. I focused on my job, and not the news. The first hint of a bigger problem came when the stock market dropped severely over a few consecutive days, the worst decline since 2008. As a pre-revenue company, we are always thinking about raising money. Although private investment is not tied to the public market, the fear of a recession send the message to investors that they should hold onto their money and be more careful about investing it. Then the next week, signs warning to stay out if you have any symptoms started popping up at public buildings, including the incubator space where our lab is located. By the end of the week, we heard about mandatory shutdowns in some parts of the country. My son’s middle school announced they would be closed for 3 weeks. I could never have imagined at the time, that he likely will never set foot inside that school again. Based on everything going on around us, my co-founder and I made the decision to shut down pre-emptively. We were concerned about the health of our team, and also didn’t want to show up one day, with experiments in progress, and be turned away at the door. So we told the team to prepare the lab for hibernation,
and the following Monday was the last day any of us saw each other in person. Thinking that a couple weeks of social distancing measures was all that was needed to stop the virus in its tracks, we expected to be back soon.

Nearly six weeks later, a return to the lab is not yet in sight. We all feel stagnant, both in science and in life. I have gotten used to the new routine of working at home and spending much of the day on the phone or Zoom calls. Most days I am just as busy as I would be in the office, but without the 50 mile commute I get a little more sleep each night. We have the team working on all the mundane tasks they were too busy to do before, like writing SOPs, reviewing competitive IP, and maintaining our website. They are also taking the opportunity to expand their skillsets, through literature, online courses, or webinars. Most importantly, they are all staying safe, and receiving a paycheck. Though as time drags on, I grow more concerned about how long the latter will last. We only have so much runway, and our planned Series A fundraise will not be easy nor fast. Fortunately, we were just approved to receive the government Paycheck Protection Plan (PPP) loan, which gives us an additional 2 months. One unexpected benefit has come out of all this: looking closely at the immunology associated with COVID-19, we realized that our commercial product—a live microbe to stimulate the immune system to augment cancer immunotherapy systems—may also help patients infected with COVID-19 and other viruses clear the virus faster and with less severe symptoms. This is an opportunity we might not otherwise have thought of, and may help improve our investment outlook. Right now, like everyone else, I just have to wait and see, hoping life will get back to normal someday soon.

Steve Van Dien, founder of Persephone Biosciences, wrote this piece from his kitchen table in Temecula, California. He is a Past President of SIMB (2019-2010) and serves on its Board of Directors.

PRESENTING A POSTDOC’S POINT OF VIEW

Vanessa M. Nepomuceno

I should preface by saying that I have had an anxiety disorder most of my life. That being said, I’ve gotten better at managing it. I’ve recognized my triggers, regularly pray or meditate, take my medication and find outlets to decompress. This pandemic has challenged every stress/anxiety relieving technique I’ve learned. COVID-19 has been a test of not my mental strength but its endurance. How do you not freak out about a pandemic?!

I’ve wasted too much time scrutinizing over statistics, scientific publications and updates in the media. I’ve spent more time thinking about those around me. Most of my family and close friends are “essential” workers. No one can stay home. Even if it was an option, none are financially able to do so. A significant portion of those people have been exposed to the virus and fallen ill. Thankfully, no one has had to go to the hospital. This past October, I’d successfully defended my Ph.D. dissertation and started my postdoc at the beginning of January. At that time I told myself that there would be less uncertainty for me. Reflecting on that moment is almost comical.

Reflection and perspective are key components of maintaining a better state of mind. This is important, because I can’t allow myself to worry (more) about situations I can’t control. I have my degree, a stable job and my health. Despite being unable to do research, I’ve had time to dig into published literature to build my knowledge to further develop my projects. I even came up with an entirely new project that I’m excited about. Furthermore, scientists from every part of the world are putting their best efforts forth to fight the COVID-19 pandemic. People are helping each other and connecting more deeply even though we can’t see one another. It doesn’t feel like it, but slowly but surely, we’re getting through this. I’m equal parts hopeful and terrified. Given the circumstances, I’d say that’s OK.

Vanessa M. Nepomuceno is a Postdoctoral Associate in Elizabeth Shank’s Lab, Systems Biology at the University of Massachusetts Medical School, Worcester, Massachusetts. She serves on the Diversity Committee of SIMB and as an Associate Editor for SIMB News.
REFLECTIONS AND THE IMPACT ON DAILY LIFE DURING THE CORONAVIRUS PANDEMIC

Betty Elder

The current mandates to remain isolated, to avoid contact, and to avoid being in restaurants and other public areas have brought back memories. While vacationing on the shores of Lake Champlain, at the ripe old age of 6, I came down with chickenpox which I promptly passed along to my 8 year old brother. While neither of us was severely impacted, we did pose a problem. We couldn’t stay in the cabin and we had to drive to Virginia - home. How to travel without exposing other people? We put on long pants and long sleeve shirts and tied bandanas around our faces when we went outside (rarely). Yes, we looked strange since this was July. At restaurants one parent would go in and eat. The other parent would stay in the car with us. The parent in the restaurant would order to go meals for us. The to go meals came out to the car with one parent. The second parent went in the restaurant to eat. [OH the days before drive-through restaurants!] Food for everyone and sanity time for each parent. We slept for a couple nights in the car as we traveled. Upon returning to Virginia, we discovered the renovations to our house were not completed. Lots of noise and paint fumes. Our father was the town physician. If he was to get any vacation, he couldn’t be at home. His vacation continued as a trip to car races in another part of the state. Our mother was stuck at home with us as well as answering patients that the doctor was not available. She also had to survive the renovations. Add to this the fact that we did not have a television and video games were nonexistent. One of our mother’s happiest days had to be the day we got out of quarantine!

Stay at home is not the same now. Lots of electronic distractions. Drive through restaurants along with delivery service for meals, groceries, and prescriptions are common. My husband and I are staying at home – he’s working at home while I was already retired. We are out a limited amount for grocery store trips and out daily for dog walks and runs for ourselves. In addition to SIMB activities, my ongoing distractions are gardening and yardwork. I definitely miss my normal activity of doing science lessons with second graders at the local elementary school. I had 128 students I was working with this year. All the teachers at the school are teaching their students online so I’m contributing science lessons for distribution to the students. We have a joint project involving observing hummingbirds. We’re developing one on manning pit fall traps to observe populations of small animals such as lizards, skinks, and turtle – basically anything that can fall into a buried 5 gallon bucket. Another project under development is observing the impact of fertilizer concentration on the growth of corn, selected because seeds are easy to get and plants are easy to measure. Smaller projects include lots of pages of math problems. These projects are also being sent to a former colleague who has been teaching at a Montessori school in Louisiana. She is distributing them to other teachers.

For however long the pandemic continues, please be safe and healthy! We can always have another meeting but we can’t have another you.

Betty Elder is a Professor Emerita at Georgia Southwestern State University, Americus, Georgia. She is SIMB’s Secretary, serves as an Associate Editor for SIMB News and is a member of SIMB’s Finance Committee.
EXPERIENCES WITH STUDENTS AT THE UNIVERSITY OF TEXAS AT SAN ANTONIO

Sara Shields-Menard

In February, it was my turn to team-teach a 155 student Biology II course. The topic was viruses to be followed by prokaryotes and I had been warned by coworkers to keep it brief—“viruses are hard for students to understand.” As a microbiologist, I had been following this novel coronavirus and thought if there’s anything to make the course content on viruses more interesting, this was it. Better yet, it was in our backyard as Lackland Air Force Base was one of the first quarantine sites. The students were engaged and thoughtful in class, asking questions, sharing what they had “heard” on twitter or other social media and then seeking the facts. I don’t know that I’ve ever had students come up to me after class and thank me for covering a topic in any class, but after these classes, I did. “This is real life,” they said.

What both the students and I didn’t know was that we would leave for Spring Break and not see each other again due to social distancing and stay-at-home orders. Emails from students went from sharing cool videos, articles, and books about viruses with me to asking me to clarify social media rumors. A level of concern and worry set in. Then, as classes came back online and more and more cases were being confirmed in the US, student emails were personal and unnecessarily apologetic. They or their families had been laid off of work. A family friend tested positive and they are scared and don’t know what else to do except hope and pray that no one in their family of nine shows symptoms. They didn’t get a chance to look at the PowerPoints online because they have been asked to work longer hours at curbside pick-up and delivery services. Now that they are living at home, they have to work at the family store. They don’t have access to the Internet. Where can they get access to a laptop? Other faculty are giving them so much more work to do. “I am so stressed out.”

I have often seen disparities in the classroom. You can usually tell which students come from a better academic background or which students have the opportunity to focus solely on coursework with little distraction, while others are balancing hours spent in class with even more hours spent at work or taking care of home responsibilities. In their seats in class, even though students all seem the same, it’s subtle differences that observant faculty use to strive for a more inclusive class. In the shift to moving classes online, this thin line that separates students, was widened to a massive fissure. Privilege prevailed.

This adjustment wasn’t easy for faculty either. In the midst of transferring courses online and fielding emails from concerned students, I was on the phone with family and friends in Louisiana, one of the hardest hit states. My home parish, Lafourche, was trending for a few weeks because it had the highest number of cases per capita. The people of the Louisiana Gulf Coast know what to do for hurricanes, storms, and oil spills, but our response has always been a group effort, inherently a social response. Social distancing are not words found in the Cajun language. Like many millennials, my struggle has been to keep my parents at home while worrying about my grandparents in a rural Louisiana nursing home. I share this loss of productivity with many current and former colleagues. The mental and emotional energy has taken its toll.

It has been four weeks since classes started online, and while most students have adapted to this new way of learning, there is the occasional student email that reminds me that this is not normal and far from over. If there is a silver lining, it’s that being more empathetic and inclusive is not something that “nice” faculty do anymore; it is now recommended and suggested in every Remote Teaching Webinar for faculty. We often talk about Diversity and Inclusion like the buzzwords that they can be a checked box under race, religion, sexuality, or gender. COVID-19 has shown us that we don’t have to look far to see disparity, and when we do, we should help.

Sara Shields-Menard is a faculty member in the Department of Biology at the University of Texas at San Antonio. She also serves as Co-Chair of SIMB’s Diversity Committee.
THE IMPACT OF THE CORONAVIRUS (COVID-19) PANDEMIC ON DAILY LIFE IN BELGIUM (AS OF 24 APRIL 2020)

Erick J. Vandamme

The coronavirus lockdown effective since 12 March 2020 due to the COVID-19 pandemic has had a dramatic impact on daily social, business and scientific life in small Belgium (11.5 million people on a 31000 km² area). Following are some of my personal impressions, given from my home in a quiet suburb of Ghent in Belgium.

Most visible in daily life was/is the rush to the shops and the hoarding behavior of many of us; it appeared as if “a biological WW III” was upcoming.

Some traffic and empty roads gave initially a good feeling and clean air, but this has changed as we feel trapped at home! Luckily, we are a country with lots of cyclists and walkers even in normal daily life. Public transport keeps on functioning, with virtually empty trains, trams and buses, but only with longer time intervals.

Brussels airport is inactive, except for freight; highways are also virtually empty. Only vans, trucks, and vehicles for official use such as police and emergency situations are allowed.

For sure it has become for many people – apart from those that are active in the medical, health care, transportation, manufacturing and agricultural and food sectors – a lifestyle at a slower pace all or not enforced. More time becomes available to catch up with neglected hobbies, reading some overdue books, physical exercise, quality time with family, gardening and rediscovering and respecting our own neighborhood, while keeping a “masked” social distance.

Most people follow these new “quarantine” rules and they only now start to realize the “invisible danger” caused by the coronavirus and the impact on personal life and on the economy!

Now it becomes more obvious that families trapped in small apartments in the cities need fresh air, playroom space and more green areas.

At the high schools and universities all lectures, meetings and conferences have been cancelled and/or postponed till the end of June/July. In most cases skype sessions or teleconferencing are replacing the “real” thing, but this remains a “sterile” artificial exercise with the human touch, contacts and eye/mind exchange/contact missing! In addition, students are confronted with their own responsibilities and motivations as to study schedule and exam results, with excursions and outings cancelled and social entertainment limited to the e-media.

In many businesses and professions teleworking is mandatory for many, though not possible for all. Teleworking with lower level school children all day at home is a challenge for the parents.
The overall economic tissue is disrupted and it will take a long period of time to recover, with the risk that many small shops, enterprises, etc. will go bankrupt.

Luckily Belgium has a well-developed social security system, and the government takes financial measures to help people and small enterprises in these difficult times.

Worldwide shortages of disposable masks, gowns, gloves (for daily life and for medical use) and of antiseptics/disinfectants are also causing major problems in hospitals and elderly homes. Even if these highly necessary medical supplies arrive, mainly being flown in from China, in 20 million quantities, this is not sufficient to cover the needs for even a short period! Local production is taking a too slow start and certification of these items takes time!

It is only since the beginning of April becoming clear that especially at elderly care homes, the situation is dramatic as to the numbers of deaths and contaminated staff, while at the moment all attention has been focused on intensive care units in the hospitals.

We had a National Security/Safety Council installed with eminent virologists, medical microbiologists, epidemiologists, medics, biostatisticians, economists and other experts that advise the Belgian government during the ongoing COVID-19 crisis. On 7 April, an Expert Group was installed that has to work out an Exit Strategy to gradually alleviate the very extensive lockdown into normal life, a most difficult task.

Fundamental and applied research aspects related to the coronavirus pandemic such as quick test kits, vaccines and epidemiology are being pursued at Belgian medical and biotechnology laboratories such as at the University of Leuven (Rega Institute), Ghent University (Center for Medical Biotechnology, Flemish Institute of Biotechnology), University of Antwerp, University of Brussels and University of Liège. In addition, research is also pursued at public health related State Institutes such as the Institute of Tropical Medicine in Antwerp and Sciensano’s Division of Biosafety and Biotechnology in Brussels.

Additional specific measures affecting daily life have been taken at the federal and local levels to prevent the spread of the coronavirus. Some of these measures are described below.

• Walking and cycling is allowed with a maximum of 2 people, or families (parents and small children), keeping 1.5 m distance and only in one’s own neighborhood. This activity is controlled by police and drones and even resting on benches is not allowed with exceptions for elderly people.

• Private parties at home and garden barbecues with extra visitors apart from immediate family, e.g., parents and young children, are forbidden.

• Use of a car is allowed for 1 person per house/family for nearby essential business such as grocery shopping, pharmacy, banking, and fueling.

• A fine of 250 € is issued for nonessential private car use. This includes travelling more than 10 km from home and no visits at all to the Belgian seacoast or the Ardennes.

• Customers enter now supermarkets with gloves, wipes and mask (still on a voluntary basis). Maximum 1 customer is allowed per 20 meter square of the shop area and this is controlled at the entrance by a “shop-guard”. No cash (coins, notes) money is accepted anymore.

• Garden centers with seeds and flower plants and life products for the garden as well as pet food stores remain open within restricted hours.

• All other shops, restaurants, pubs, hardware shops such as Brico which is equivalent to Home Depot in the US, fashion, hairdressers and other beauty related shops, electronics, etc. are closed. This has led to a boom in online shopping and home delivery.

Depending on the evolution of the coronavirus data over the next weeks in terms of new cases, patients in intensive care units, recovered patients, and deaths/1 million people, more shops will be able to open most hopefully around 6 May. There is also a possibility that around 15 May schools may gradually be opened for some grades only for a few days per week. It looks like there are still some weeks ahead of us for a complete recovery but we are very hopeful for this to happen.

Erick J. Vandamme is an Emeritus Professor, Ghent University, Ghent, Belgium. He is also a Senior Editor of the Journal of Industrial Microbiology and Biotechnology as well as a member of the International Outreach Committee for SIMB.
The 13th meeting of the Recent Advances in Fermentation Technology (RAFT®) returned to beautiful and warm Bonita Springs, Florida last October 27th through October 30th, 2019. The conference was previously held in Bonita Springs in 2017. Tiffany D. Rau, PhD, Rau Consulting, LLC, and Tim Davies, PhD, Corteva, served as Program Chair and Co-Chair respectively. The meeting is co-sponsored by the Society for Industrial Microbiology and Biotechnology (SiMB) and the Division of Biochemical Technology (BIOT) of the American Chemical Society (ACS). The event helps to facilitate collaboration and innovation as it brings together engineers and scientist from all over the world. Over 400 attendees were able to take time out of their schedules to attend. Participants were from twenty-three different countries.

The 2019 RAFT® meeting explored a number of aspects that go into discovering new products, developing processes, how to scale them up for commercial supply, as well as planning the next generation of processes and products. The life cycle for a product/
The concept was represented during the meeting and different markets were explored including biopharmaceuticals/medical, food and agricultural applications, and industrial chemicals. The conference format was single track for presentations and consisted of four sessions with question and answer sessions following each presentation and two sessions with an interactive round table. Five minute poster presentations were integrated into the RAFT® sessions which gave additional individuals the opportunity to speak at the conference and allowed the posters to be highlighted in the main session. The two RAFT® poster sessions provided additional dialogue between the attendees.

The Advanced Fermentation Course was offered at RAFT® for the second time and drew a large and engaged crowd. Special thanks to Tim Cooper of Novozymes who joined Billy Allen of Eli Lilly (retired) as a course instructor in 2019 which allowed for additional content. RAFT® is continually expanding its offering of workshops so be sure to take advantage of the opportunities provided to not only learn something new but perhaps a different twist on the old.

The Keynote Presentation, “A History of Commercializing Bioprocesses, 150 Years in the Making. What We’ve Learned and Continue to Learn,” was given by Adam Burja of DSM. The presentation highlighted the journey of the industry, and more specifically of DSM, to produce different products using bioprocessing. In 2019, DSM celebrated 150 years of biotechnology and Adam invited the group to a special exhibit at the Delft DSM site about the journey and the organisms. The exhibit will later move to a museum in The Netherlands.

The scientific sessions covered a wide range of topics including cell engineering, obtaining and processing data and knowledge in new ways, scale-up and design for manufacturing, continuous manufacturing, and a session on lessons learned and best practices. Artificial intelligence (AI), machine learning and new ways to conduct data analysis are more than just doing ‘Big Data’. Implementing new data analysis techniques into day to day operations does not happen overnight but is a continual journey, and teamwork is a big part of a successful implementation. James Waller of Bayer gave a talk entitled, “The Practical Application of Machine Learning for Fermentation Optimization in Industry” where...
he addressed some of the questions people have about the implementation of machine learning into industry workflows. The Scale-up and Manufacturing session continues to be very popular at RAFT® and never fails to provoke thought and discussions as the quest for the optimal scale-up and location is never as easy as it sounds! RAFT® draws a mix of presentations from small and large companies. An example of this is Synthorx, a LaJolla, California start-up, which in December 2019 announced that it would be acquired by Sanofi for $2.5 billion. Carolina Caffaro spoke at her first RAFT® conference on Synthorx’s new synthetic DNA base-pair in the presentation entitled, “Application of a scalable semi-synthetic microbial platform with an expanded genetic alphabet for the manufacturing of improved cytokine therapeutics.” A very timely presentation! For more details on the meeting content please refer to the SIMB website www.simbhq.org/raft/.

RAFT® would not take place without the wonderful volunteers (session, workshop, and poster organizers), participants, sponsors and vendors, and the SIMB staff. Thank you for making RAFT® a relevant and scientifically strong meeting full of positive interactions whether they are during the sessions, lunch, posters, or other networking opportunities. The 2019 RAFT® meeting was action packed; reenergizing the participants and reminded them that they are all doing amazing work and can impact their colleagues positively.

Photographs were taken by Bob Berger who was the official RAFT® volunteer photographer. Thanks Bob!


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Methylotrophs and Methylotroph Communities
Ludmila Christoserdova, editor
Caister Academic Press, Norfolk, UK

*Methylotrophs and Methylotroph Communities*, edited by Ludmila Christoserdova, includes articles on the fundamentals of methylotrophy, a field of microbiology that has existed for over one hundred years. Methylotrophs are microbes capable of metabolizing reduced one-carbon compounds such as methanol or methane for their carbon and energy needs. This group includes organisms that can use methanol to make amino acids, vitamins, recombinant proteins, single-cell proteins, coenzymes, and cytochromes. Some methylotrophs, such as methanotrophs, can degrade methane. Methylotrophs should not be confused with methanogens which produce methane.

Contributors to this book represent institutions in the United States, Germany, Russia, Poland, France, the United Kingdom, China, and Japan. Chapters one through four provide a review of methanotrophy with the potentials of these organisms in environmental, industrial, and medical applications; an overview of methane producing/consuming microbes plus their classification; metagenomic insights into methanotrophy; and analysis of the key enzymes and recent changes in the metabolic pathways of methanotrophy. The fifth chapter is an overview of the roles of lanthanides in methylotrophy and the potential of lanthanide enzymes in biotechnology. Chapter six focuses on *Paracoccus* species, highlighting metabolic variability and evolutionary mechanisms for metabolic flexibility. Chapter seven features methylated amines including methods for quantifying them in marine waters and sediments, metabolic pathways for their formation/degradation, and the biochemistry/structural biology of the enzymes involved. Chapter eight covers microbial degradation of chloromethane. Based on my background in environmental microbiology and ecology plus having grown up in a rural agricultural area, I was particularly interested in chapter nine which covers microbial cycling of methanethiol. I can remember the funky odors when bicycling by hog farms and gardening in an area adjacent to a compost heap. I can also remember the strong sulfur-based odor around the wetland adjacent to the campus where I worked. All of these are indications of the occurrence of the sulfur cycle and the activities of...
the microbes involved, the topic covered in this chapter. Chapter ten presents the communal function in aerobic methane oxidation along with the role of lanthanide-dependent dehydrogenases in methylotrophy and enzyme regulation.

Chapter eleven, indicative of the diversity of methylotrophs, describes the physiology of methylotrophic yeasts on leaf surfaces and adaptations for life in the phyllosphere. On a very different topic, chapter twelve covers specialized metabolites from methylotrophic Proteobacteria. This chapter points to the diversity of the metabolites including acyl-homoserine lactones involved in quorum sensing and biofilm formation; methanobactin involved in copper acquisition and potentially useful in chelation therapy for copper toxicity in Wilson’s disease; and phytohormones such as auxins and gibberellins which influence plant growth and development. Chapter thirteen covers conversion, by native methylotrophic strains as well as engineered synthetic methylotrophs, of methanol into value-added chemicals which may be of particular interest to SIMB members. For instance, in the assimilation mode, target precursors include mesaconic acid, methylsuccinic acid, 1-butanol, crotonic acid, 2-hydroxyisobutyric acid, mevalonate, and 3-hydroxyisopropionic acid. As an example, mevalonate and its terpenoid derivatives are used in flavors, fragrances, pharmaceuticals, and biofuels. Chapter fourteen covers modular engineering for synthetic implementation of pathways in assimilation of carbon from methanol and formate. The final chapter is a review of the development of *Methylobacterium* as a model system for experimental evolution.

Each chapter is well organized, concise, and indicative of the commitment and involvement of the authors as well as the researchers cited in the chapters. Through the presentation of biochemical, physiological and systematic data this book highlights the diversity of methylotrophs, their functions, and their potential applications and will be of interest to many of the members of SIMB.
The latest Corporate Member survey indicated that the SIMB Career Center was a top benefit of SIMB Corporate Membership.

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For assistance with job postings at all SIMB meetings, the Career Workshop held during the SIMB Annual Meeting, navigating the Career Center site, or Resume Review during the year, contact SIMB Placement Chair Bob Berger, bbberg@att.net

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An Overview of Diversity Committee’
Spring Report to the SIMB Board of
Directors
Submitted by Sara Shields-Menard, Felipe Sarmiento, and Sheena Becker

Sara Shields-Menard and Felipe Sarmiento serve as Co-Chairs of the SIMB Diversity Committee and other committee members include Sheena Becker, Noel Fong, Laura Jarboe, Ganesh Sriram and Vanessa Nepomuceno. Nigel Mouncey serves as an Ad hoc Member and Susan Bagley is an Emeritus Co-Chair.

Accomplishments/Goals

SIMB Diversity Travel Award to be presented during the SBFC

We had two applicants for the SIMB Diversity Travel Award to be presented at the Symposium on Biomaterials, Fuels and Chemicals (SBFC). Two candidates were selected: Mara Cuebas-irizarry and Patricia Kerner. As the conference has been cancelled because of the COVID-19 pandemic, the Diversity Committee, during their last meeting, decided to give these awardees the opportunity to present their work and receive their award at the 2020 Annual Meeting in San Francisco. However, as the 2020 Annual Meeting was also cancelled, the committee will decide at a later date how these award winners will be honored.

2020 Annual Meeting Diversity Session

We had two confirmed speakers for the 2020 SIMB Annual Meeting Diversity Session:

Janie Pinterits, DEI Program Manager at Berkley Lab (https://www.linkedin.com/in/janie-p/)

Audrey Parangan-Smith, Assistant Director, SF BUILD, SFSU (https://www.linkedin.com/in/audrey-parangan-smith-b26a50a4/)

The Diversity Committee will continue to keep these confirmed speakers engaged with the Society though the 2020 Annual Meeting was cancelled.

Committee Evaluation and Improvements for 2020

Travel Awards Evaluation

Diversity Committee application review process: Vanessa has streamlined the documents and evaluation process for sub-committee members using Google Docs. This has helped to decrease committee review time and pass the nominations to the awards committee faster.

Low number of applicants

Application submission has been cumbersome as students check the box on the SIMB website, but do not actually email in a submission.

Action taken: Vanessa contacted 13 students who checked the box, but did not submit an application. This did not increase applications submitted. We had 2 applicants.

Jan Westpheling (President of SIMB) agreed to work with the SIMB Headquarters staff so that applications can be submitted on the website as students are submitting abstracts and registering for the conference:

Are we targeting the right people? At the 2019 annual meeting, 64 students registered and 32 had posters. We had 3 applicants (1 of which was late). Current guidelines are graduate student, US citizen, and URM or female. We will open the award up to post-docs with the intention of awarding one to a graduate
student and the other to a post-doc. In the case of large numbers of graduate students vs. post docs, preference will be given to graduate students.

Money: The award is $500, banquet ticket is waived, and free membership is given for the following year. It does not waive the registration fee. Previously, funds have taken about a month to reach the students. Chris Lowe, Executive Director of SIMB, agreed to present the check to the student at the awards ceremony to avoid this delay.

Discussion: Instead of $500, can free registration be provided for award recipients (including banquet ticket)?

Jan suggested adding a letter of recommendation and withdrawing the statement of diversity. Pros and cons of Letters of Rec and Diversity Statement were discussed. Letters of Rec should be guided to ensure that the information provided (and evaluated) is the same for applicants. A word count was suggested for the diversity statement to encourage students who may have been intimidated by a 2-page write-up. The sub-committee will change application wording to reflect both/either a letter of recommendation and/or diversity statement. The diversity statement will be no more than 250 words. The letter of recommendation will be a formal letter. The committee’s aim is to submit a draft to the BOD in June (pre-annual meeting) with implementation for Microbiome meeting.

Annual Meeting Session Evaluation

Low attendance- At previous sessions, there have been about 20-40 people in attendance. The panel discussion at the end of the session has always been impactful, but not well attended. The session format has been changed and we have recruited local speakers to increase attendance and decrease costs.

Session format: 1.5 hour slot with 2 speakers and a panel discussion

Confirmed Speakers: Janie Pinterits, DEI Program Manager at Berkley Lab and Audrey Parangan-Smith, Assistant Director, SF BUILD, SFSU. Panel will include Felipe and Sheena with the guest speakers.

Diversity Committee will advertise using their personal social media.

Past annual meeting session chairs have made a huge effort to keep speakers local to minimize costs. This effort would have been repeated this year.

Other Updates

Committee member Terms: Felipe Sarmiento fulfills his 3-year term as co-chair of the Diversity Session. Sara and Felipe already have identified Sheena Becker as the new co-chair from the committee. Sheena has agreed.
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<tr>
<td>Ethics Committee</td>
<td>Susan Bagley</td>
<td><a href="mailto:stbagley@mtu.edu">stbagley@mtu.edu</a></td>
<td>2022</td>
<td>Scott Baker, Tim Davies, George Garrity, Peter Punt, Thomas Klasson, Erick Vandamme, Michael Resch</td>
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<td>International Outreach</td>
<td>Susanne Kleff</td>
<td><a href="mailto:kleff@msu.edu">kleff@msu.edu</a></td>
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<td>Scott Baker, Tim Davies, George Garrity, Peter Punt, Thomas Klasson, Erick Vandamme, Michael Resch</td>
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<td>Special Conferences</td>
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<td>Natural Products 2020</td>
<td>Ben Shen</td>
<td><a href="mailto:shenb@scripps.edu">shenb@scripps.edu</a></td>
<td>2020</td>
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<td></td>
<td>Brian Bachmann</td>
<td><a href="mailto:brian.bachmann@vanderbilt.edu">brian.bachmann@vanderbilt.edu</a></td>
<td>2020</td>
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<td></td>
<td>Nigel Mouncey</td>
<td><a href="mailto:nmouncey@lbl.gov">nmouncey@lbl.gov</a></td>
<td>2020</td>
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<tr>
<td></td>
<td>Yi Tang</td>
<td><a href="mailto:ytang@ucla.edu">ytang@ucla.edu</a></td>
<td>2020</td>
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<tr>
<td>SBFC 2020</td>
<td>Claus Felby</td>
<td><a href="mailto:cle@nova.dk">cle@nova.dk</a></td>
<td>2021</td>
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<tr>
<td></td>
<td>Scott Baker</td>
<td><a href="mailto:scottbaker@pni.gov">scottbaker@pni.gov</a></td>
<td>2022</td>
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<td></td>
<td>Seema Singh</td>
<td><a href="mailto:ssingh@lbl.gov">ssingh@lbl.gov</a></td>
<td>2019</td>
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<td>JIMMM 2020</td>
<td>Debbie Yaver</td>
<td><a href="mailto:dsv@novozymes.com">dsv@novozymes.com</a></td>
<td>2022</td>
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<td>Yoram Barak</td>
<td><a href="mailto:yoram.barak@basf.com">yoram.barak@basf.com</a></td>
<td>2022</td>
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<td></td>
<td>George Garrity</td>
<td><a href="mailto:garrity@msu.edu">garrity@msu.edu</a></td>
<td>2022</td>
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Become a SIMB Corporate Member

**Member Benefits:**
- Meeting Registration Discounts (Each $500 voucher is good toward any SIMB meeting registration fee)
  - Silver - 1 $500 voucher
  - Gold – 2 vouchers
  - Diamond - 3 vouchers

**Other Current Benefits:**
- Recognition and corporate profile in *SIMB News*
- Discounted exhibit booths
- Discounted advertisements and job postings
2020 SIMB Corporate Membership Application

Choose Your Corporate Level:

- [ ] Institutional Level $700
- [ ] Bronze Level $500
- [ ] Silver Level $1,000
- [ ] Gold Level $1,500
- [ ] Diamond Level $2,500

Name of Company:

Company Website:

Company Description (50 words or less):

Social Media Handle(s):

** Gold and Diamond Levels - Send company logo to membership@simbhq.org

How Did You Hear About SIMB?

- [ ] Colleague/Networking
- [ ] SIMB Meeting Announcement
- [ ] Direct Mail
- [ ] SIMB News
- [ ] Social Networking
- [ ] SIMB Local Section
- [ ] SIMB Member
- [ ] JIMB
- [ ] SIMB Website
- [ ] SIMB Meeting Attendance

Choose Your Industry Segment:

- [ ] Fermentation (non-food or beverage)
- [ ] Cell Culture
- [ ] Metabolic Engineering/Strain Engineering
- [ ] Molecular Biology/Synthetic Biology Tools Development
- [ ] Biocatalysis/Enzymology/Biochemistry/Enzyme Engineering
- [ ] Biomass Pretreatment, Deconstruction, and Conversion
- [ ] Antibiotics/Secondary Metabolites/Natural Products/Pharmaceuticals
- [ ] Microbiome Research/Metagenomic
- [ ] Microbial Control/Biocides and Disinfectants/Clinical & Medical Microbiology
- [ ] Environmental Microbiology/Bioremediation
- [ ] Food Microbiology and Safety
- [ ] Brewing, Winemaking, and Fermented Foods
- [ ] Systems Biology, Omics, Computational Biology, and Bioinformatics
- [ ] Process Development & Biochemical Engineering
- [ ] Agriculture/Plant Biology
- [ ] Marine, Aquatic Biology & Algae
- [ ] Mycology/Fungal Biotechnology
- [ ] Analytical Chemistry, QA/QC
- [ ] Regulatory Affairs, IP, and Sustainability

Payment

Federal Tax ID# 35-6026526

Total Amount Enclosed $ ____________________________

- [ ] Invoice my company
- [ ] Check enclosed (payable to SIMB). Check must be drawn from a US bank.
- [ ] Charge to: □ Visa □ MC □ AMEX
- [ ] Wire Transfer (Additional Fees Apply)

Card #: ____________________________

Exp. Date: ____________________________

Signature: ____________________________

Name on Card: ____________________________

Authoring Officer who is to receive all billing information:

Name: ____________________________

Title: ____________________________

Address: ____________________________

City/State/Zip: ____________________________

Country: ____________________________

P: ____________________________ F: ____________________________

Email: ____________________________

(see page 2 for company representative form)

Send Payment To:

Society for Industrial Microbiology & Biotechnology • 3929 Old Lee Highway Suite 92A • Fairfax VA 22030-2421

P: 703.691.3357 x23 • F: 703.691.7991 • E: membership@simbhq.org • www.simbhq.org
# 2020 SIMB Corporate Membership Application

## Company Representative who will receive membership including publications:

- Please do not send me SIMB information via email
- Please do not include me on any SIMB mailing lists
- Please do not include my information in the SIMB online membership directory

### Please Select a Delivery Method for both JIMB and SIMB News

- SIMB News MAIL Print Copy
- SIMB News Online Access ONLY
- JIMB MAIL Print Copy
- JIMB Online Access ONLY

<table>
<thead>
<tr>
<th>Name:</th>
<th>Title:</th>
<th>Address:</th>
<th>City/State/Zip:</th>
<th>Country:</th>
<th>P:</th>
<th>F:</th>
<th>Email:</th>
</tr>
</thead>
</table>

### Additional Company Representative (Gold and Diamond Level only)

- Please do not send me SIMB information via email
- Please do not include me on any SIMB mailing lists
- Please do not include my information in the SIMB online membership directory

### Please Select a Delivery Method for both JIMB and SIMB News

- SIMB News MAIL Print Copy
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- JIMB Online Access ONLY

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</table>

### Additional Company Representative (Diamond Level only)

- Please do not send me SIMB information via email
- Please do not include me on any SIMB mailing lists
- Please do not include my information in the SIMB online membership directory

### Please Select a Delivery Method for both JIMB and SIMB News

- SIMB News MAIL Print Copy
- SIMB News Online Access ONLY
- JIMB MAIL Print Copy
- JIMB Online Access ONLY

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<th>Email:</th>
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</table>

### Note:
The default delivery method for publications is print, if no option is selected. If you DO NOT want a print copy mailed, select online access only.

Your company and its corporate representative(s) agree to adhere to the SIMB Code of Conduct (form will not be processed if box is not checked).
Online advertising is an effective way to reach your target audience and should be part of your marketing strategy. Get in front of the customers you want to reach with a SIMB eNews banner advertisement. Contact SIMB to learn more! advertising@simbhq.org
Infors invites you to discover the new Multitron
We are shaking with excitement!

More Cells in Less Space
Grow more cells in the industry’s most space efficient, easy-to-load ergonomic design.

Worry-free Operation
Rest easy knowing your cells are growing, even when you’re not watching.

cGMP-Ready
Multitron systems can be validated for cGMP use.