Society for Cryobiology 2022 Election
Candidate Biographies and Vision Statements
Election Dates: November 1-14, 2022

Voting Instructions
All members in good standing will receive an email in advance of the election to the email address listed in their member profile. The email will contain a personalized one-time use voting link to cast your vote anonymously at simplyvoting.com. If you do not receive your voting email within 24 hours of the election opening please check your spam folder and then contact admin@societyforcryobiology.org.

Candidates for Governor-at-Large (2023-25)

- **Agca,** Yuksel
- **Ballesteros,** Daniel
- **Kilbride,** Peter
- **Levinger,** Nancy
- **Sandlin,** Rebecca
- **Snyder,** Kristi
- **Weng,** Lindong

Voting Method: Each voter is assigned 100 points to allocate to one or more candidates e.g. a voting member could give one candidate all 100 points, or divide points between any number of selected candidates. All candidates are ranked by cumulative points, with the top 3 candidates announced as the new Governors.

Yuksel Agca, DVM, MS, PhD

University of Missouri, USA

Biography: Dr. Yuksel Agca received his DVM degree from the University of Ankara, Turkey. His first acquaintance with the field of cryobiology began when he was pursuing MSc. degree at the University of Wisconsin-Madison and continued on during his PhD at the Cryobiology Research Institute at the Methodist Hospital of Indiana via Purdue University. Later, he completed postdoctoral studies at the Indiana University School of Medicine. Dr. Agca is currently tenured faculty at the University of Missouri College of Veterinary Medicine. His research program mainly focuses on cellular and molecular aspects of germplasm cryobiology as well as genetic modification in rats to investigate human diseases such as Alzheimer's disease. To date, he had the opportunity to collaborate with an outstanding group of scientists to better understand the cryobiologic properties of cells and tissues (*e.g.* gametes, ovarian tissues) of biomedically and agriculturally important species as well as the development and characterization of transgenic rat model of Alzheimer's Diseases. These interactions provided him with a comprehensive perspective of the field of cell and tissue cryobanking, and animal modeling of human diseases. Throughout his career development he had the opportunity to work with many mammalian species including mice, rats, pigs, cattle, sheep, cats, human and non-human primates. To date, he has published approximately 77 journal articles and contributed to 11 book chapters. He has mentored and trained Ph.D. and Master's students, research fellows, externs, veterinary residents, and visiting scholars. He had a great opportunity during the establishment of two NIH-funded national genome resources centers, namely Rat Resource and Research Center and the Mutant Mouse Resource and Research Center. He is currently the Co-investigators of these two national rodent genome resource centers and overseeing the reproductive cryobiology section. He has been a member of the Society for Cryobiology since

1995, and served as society Secretary in the past.

Vision Statement: I have always believed in the importance of basic research effort and its translation into biomedical and agricultural fields. Cryobiology in conjunction with the life sciences and engineering has no boundaries. The interaction of cross-disciplinary knowledge and technology is crucial for the development of new tools and methodologies that will ultimately serve well-being of humanity. Currently, biomedical, agricultural and conservation biology communities are extensively utilizing cryo- and low-temperature storage of biomaterials for various reasons. Furthermore, as the field of bioengineering is advancing at a rapid pace, our mission as cryobiologists is also becoming more complex. We are not only responsible for finding damages caused by the cryopreservation process, but also for developing optimal cryopreservation protocols which ensure proper long-term storage conditions by complying with universal archiving standards for potential users in the future. As anticipated, science is progressing at a rapid pace and adding new disciplines, and becoming more and more competitive than ever. Thus, we must find resources to reach brilliant young minds, and support and encourage them to be part of the prospects of our field to uphold our society in the future. We should continue to develop endowment arrangements that will provide longstanding support for young researchers by playing a more active role in interacting with regulatory agencies and related societies to have more visibility and voice.

Declaration of Competing Interest: I have no competing interest in relation to the position for which I am a candidate.

Daniel Ballesteros, PhD

University of Valencia, Spain

Biography: Daniel Ballesteros is lecturer in (and Assistant Professor of) botany at the University of Valencia (Spain) in the department of botany and geology. He obtained his BSc and MSc degrees in biology and plant science from the same university where he develops his current professional activities, where he also received a PhD in Plant in 2008. However, Dr. Ballesteros has a large international career and experience in plant germplasm conservation and cryopreservation gained during his postdoctoral phase across research institutions and centers of the USA, South Africa, Italy, and United Kingdom. His research aims to reveal the fundamental basis of desiccation and low temperature stress tolerance in plant propagules, particularly in relation to successful cryopreservation. In addition to studies on desiccation sensitive seeds (e.g., oaks, chestnuts), he is interested in the variation in longevity in plant propagules, from fern spores as a unicellular model to more complex systems. Often these studies involve making structural and biophysical determinations. He also carries out teaching and training activities on plant cryopreservation for technical staff and supervise research projects of undergraduate, MSc and PhD students. Frequent participant to the annual meetings of the SfC since 2010, Dr. Ballesteros became a regular member of the Society for Cryobiology in 2018 and has acted as governor from 2020 to 2022. He was executive co-chair of CRYO2018 along with Dr. Antonio Molina-García and co-chair of the program committee of CRYO2019 along with Dr. Jason Acker and has served on the program committee of the annual meeting of the SfC from 2018 to 2022. Dr Ballesteros was also plenary speaker at CRYO2021.

Vision statement: Cryobiology is an essential science, crucial to improve the methods for an

effective cryopreservation of plants and animal cells, and vital to understand how life respond and has adapted to low temperatures and to living in freezing environments. Advances in cryobiology and cryopreservation can only be possible if we build our research and technological developments on the knowledge that has been previously acquired. These advances are often stimulated by interdisciplinary learning, by collaboration among research groups, by effective networking, and by the support and promotion of the next generation of scientists. The Society for Cryobiology (SfC), its publications, annual meetings, and, lately, the webinar series, are global references for these activities.

I joined the board of governors in 2020 with two main aims: (1) to increase the representativity of the "plant cryo community" within the governing body of the SfC, (2) to increase the participation of the "plant people" in the annual meetings of the SfC, and (3) to increase the multidisciplinarity of the fundamental sessions at the annual meeting of the SfC. I think these aims have mostly been accomplished by my role as governor and my support to Christina Walters nomination (2021-2023 governor), my active participation in the organization of the program of the annual meeting (with a regular organization of 3 plant sessions per year) and the webinar series, and my role as SfC's ambassador when joining meetings and workshops on plant cryopreservation organized by other societies and groups. I think my work has also helped to increase the number of plant-cryo fellows within the SfC membership, something that I am confident happened during CRYO2018.

But, while some advances have been made in the last years, the community of researchers and professionals of the plant cryopreservation area in the SfC is still small. This community is potentially very large (over 200 people) but is found spread across societies without a specific focus on cryobiology (e.g., ISSS-International Society for Seed Science, the ISHS-International Society for Horticultural Sciences) and conservation/biobanking initiatives for both crop and wild species (BGCI-Botanical Gardens Conservation International, CGIAR-global partnership that unites international organizations engaged in research about food security). In addition, I still find that the multidisciplinarity of the fundamental sessions at the annual meeting of the SfC could be larger (often dominated by mammalian cell systems). My vision for the next years is that the SfC becomes a central and global reference for plant researchers involved in cryopreservation and natural adaptations of plants to freezing environments, as well as for plant biobank professionals. In my vision I would also like to promote that fundamental findings from plant scientist with applications on other fields that are currently presented in other platforms could be promoted among diverse disciplines at the annual meeting of the SfC and, on the other way around, plant scientists could learn from advances made by other disciplines. This is crucial in a field like cryobiology, where the fundamental basis of all research and applications (i.e., ice formation/avoidance, vitrification, and stability of material in the frozen/solid/vitrified state) are shared among life kingdoms and disciplines.

I think there are several activities that I could do to support this vision: (1) integration of more interdisciplinary sessions in the program of the annual meeting of the SfC (i.e. more sessions on fundamental research where "the sperm", "the organ", and "the plant" scientists can join the presentations on new research advances), (2) support to balance the program of the annual meeting of the SfC to have a wider interdisciplinary representation (to avoid high biases towards specific fields typically overrepresented), (3) creation of

sessions appealing for researchers on fundamental research (genomics, metabolomics, biophysics) that are not directly involved in the SfC and cryobiology but their research is interesting/applicable for members of the SfC, (4) increase of the presence of the SfC in other international societies with interests on cryobiology (e.g., by promoting the organization of specific sessions and workshops in the annual research meetings of diverse societies or by organizing more joint annual meetings with diverse societies and organizations), (5) increase my participation in the organization of the webinar series of the SfC and (6) promote the development of a plant cryopreservation issue within Cryobiology.

Declaration of Competing Interest : I have no actual or perceived competing interests in relation to the position for which I am a candidate.

Peter Kilbride, PhD

Cytiva, Cambridge, UK

Biography: Dr Peter Kilbride has been the Senior Research Scientist in Cryobiology at Cytiva (previously Asymptote) since 2015. In his position he has been involved in and managed a range of projects, including cell therapy transport and warming; developing large volume freeze-drying protocols; developing optimal cryopreservation techniques for regenerative medicine applications such as T cell therapies; working with GMP compliant cold-chain delivery; working on thymus tissue cryopreservation; and expanding our cryolab facilities.

Dr Kilbride obtained his Ph.D from University College London in the field of "Mathematics and Low Temperature Biology", in a joint program with Asymptote. His Ph.D focused on large volume cryopreservation of a bioartificial liver for clinical delivery. His undergraduate program was in Physics at King's College London, with his final project examining the detection of oral cancers using novel spectrographic techniques. The principal aims of his present research involves linking together developments from different fields to benefit cryopreservation problems, and developing (or more often modifying) cryopreservation protocols to work within the constraints of regulatory frameworks for medicines, without negatively impacting the post-thaw outcomes.

Dr Peter Kilbride has published in journals including *Cryobiology, Tissue Engineering, PLoS One, PeerJ*, and *BioResearch Open Access*, and contributed several book chapters. Since 2013 he has been actively involved in the Society for Cryobiology including organising the ICYR events for the 2016 conference and organising student sessions for the 2017 meeting.

Vision Statement: If elected to the position of Governor in the Society for Cryobiology there are three primary areas I would like to develop further. The first is to focus on students and early-stage researchers – too many promising researchers move fields after completing their PhDs or some early research and capturing more of them would benefit the field. I would do this through connecting junior cryobiologists to senior scientists, perhaps at events during the annual meetings, as these relationships could spawn the next generation of cryobiology breakthroughs.

The second strand would be to help standardise the field and cement the Society as the go-to experts in cryobiology. Too many non-cryobiologists require techniques which are straightforward to us, but they often receive conflicting advice or confuse different aspects of the literature. We could achieve this through an increase in publishing general cryopreservation protocols and gold standard techniques to develop new protocols (such as

criteria for post-thaw tests, time points, regulatory approval etc.). There are many cryo groups not involved in the society and as well as helping to standardise the field, this would increase the profile and perhaps membership of the society.

The third area I would like to pursue would involve increasing the profile of the Society in disparate cryopreservation groups and increase industrial sponsorship of the Society in areas such as regenerative medicine where the criticality of cryopreservation is becoming more widely appreciated.

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Nancy E. Levinger, PhD

Colorado State University, USA

Biography: Nancy E. Levinger is a Professor and University Distinguished Teaching Scholar at Colorado State University where she holds a tenured faculty position in Chemistry and courtesy appointment in Electrical Computer Engineering. She earned B.A. degrees from Northwestern University in Integrated Science and Physics (1983). Her Ph.D. degree in chemical physics from the University of Colorado (1990) investigated spectroscopy and dynamics in large cluster ions. As a National Science Foundation postdoctoral fellow, she worked on ultrafast electron transfer dynamics with P. F. Barbara at the University of Minnesota. Since joining the faculty at Colorado State University in 1992, her work has focused on dynamics of molecules in the condensed phase, especially water and molecular assemblies, molecules at liquid interfaces and in confined environments. She utilizes a broad range of techniques from ultrafast spectroscopies to NMR to neutron scattering to coherent Raman microscopy understand details for complex systems. She has published nearly 100 peer reviewed papers and presented more than 160 invited talks at conferences and institutions. She is a fellow of the American Physical Society since 2005, American Association for the Advancement of Science (AAAS) since 2010, and American Chemical Society since 2014.

Levinger recently began exploring cryopreservation in plants prompted by many papers that motivated their fundamental investigations of sugars interacting with water as relevant to cryopreservation. Since 2018, Levinger and her research group have enlisted coherent Raman microscopy to follow the location of cryoprotectants in plant callus cells (Asian rice) and tissue (peppermint shoot tips). This work, supported by the USDA, is demonstrating that cryoprotectants comprising plant vitrification solution 2 (PVS2), that is, dimethyl sulfoxide (DMSO), ethylene glycol, and glycerol quickly cross plant cell walls and membranes. Recent experiments even suggest that DMSO permeates the nucleus in mint shoot tip meristem and leaf primordia cells.

Although she has only recently joined the realm of cryopreservation, Levinger has demonstrated exceptional leadership in a range of professional organizations that give her valuable insight for the Society for Cryobiology. She was elected and served in the American Physical Society (APS) Division of Chemical Physics as Executive Committee Member-at-Large, 2004-2006, then as its Councilor (2009-2012) and as an APS Executive Board member, 2011-2012. She was elected and served on the executive board of the American Chemical Society (ACS) Physical Chemistry division (2012-2016; Chair in 2015) where she was instrumental in the founding of the Experimental Physical Chemistry subdivision and served as its first chair (2017). She also served on the ACS Grants & Awards

subcommittee (2013) and was the physical chemistry) representative to Multidisciplinary Program Planning Group (2016-2020). Levinger has served on and chaired more than 20 selection committees for ACS and APS national awards. Levinger has also demonstrated her service in the AAAS Chemistry Division as a Council Delegate, Chemistry Division (2016-2017) and as a member of the AAAS Chemistry Division Nominating Committee (2017-2019; chair in 2019). She serves on the board of the Telluride Science Research Center, having served as president in 2020. She was elected to chair two different Gordon Research Conferences (Water and Aqueous Solutions vice-chair 2014, chair 2016 and Chemistry and Physics of Liquids vice-chair 2019, chair 2023) She currently chairs the Scientific Advisory Board for the Interfacial Dynamics in Radioactive Environments and Materials (IDREAM) Energy Frontiers Research Center. This range of leadership experience gives Levinger unique perspective for the Society for Cryobiology.

Levinger has a strong interest in educational issues. She incorporates innovative teaching ideas to her courses and is a strong proponent of involving students at all levels in research. Throughout her career, Levinger has been a strong advocate for women in science.

Vision statement: Members of the Society for Cryobiology comprise an incredibly broad range of backgrounds all focused on exploring how low temperature conditions affect biological materials. To be relevant to this highly diverse group presents a challenge to the society; it must maintain its focus while supporting both mainstream and minority aspects of cryobiology. At the same time, the diversity of thought that can arise from the blend of members' expertise presents an excellent opportunity for productive interactions between researchers with different backgrounds that can drive innovation for the future of the field.

So what can and should the SfC do to add value to its members and the community beyond? Although we have a short statement of purpose, we lack a mission statement to help guide us forward. How do we know if we have met the goal to "promote scientific research in low temperature biology and to improve scientific understanding in this field"? We need to ask what role the SfC plays for its members and how we can we be even more valuable to the membership. In particular, what can we do to add value for the young members who are the future of the society? We have a responsibility to support people, plants and the Earth. How can the SfC - not just our research - be valuable to the greater community beyond our membership?

Despite its great diversity of interest and research, the SfC lags in other aspects of diversity. Of 31 fellows of the society, only four are women; next year after 58 years of the society's existence, we will celebrate its first woman president. To thrive in the 21st century, the SfC must embrace diversity in all its forms. This includes providing high visibility opportunities, e.g., plenary presentations, fellowship, etc., to individuals whose work may otherwise be passed over in favor of more mainstream, higher profile individuals. Increasing representation in our society will help us to grow with the growing diversity worldwide.

As a relative newcomer to the SfC, but an active member and leader in many other professional societies, I can bring leadership experience, complementary knowledge and diversity to the Board. I can connect the SfC to people and areas beyond the traditional low temperature biology and cryopreservation practitioners. I am committed to raising the visibility of the SfC through partnerships with other organizations. I am committed to

increasing diversity in membership through recruitment of young scientists to our ranks.

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Rebecca Sandlin, PhD

Harvard Medical School and Massachusetts General Hospital, USA

Biography: Rebecca Sandlin is a junior faculty member at the Center for Engineering in Medicine and Surgery (CEMS) at the Massachusetts General Hospital and Harvard Medical School. In 2007, she received her B.S. from Western Kentucky University where she double majored in Chemistry and Mathematics. In 2013, she received her Ph.D. in Chemistry from Vanderbilt University where she focused on parasite biochemistry, high-throughput screening, and drug discovery. Throughout her doctoral studies, Dr. Sandlin became increasingly interested in translational research opportunities at the interface of engineering and biology. To pursue this interest, in 2013, she joined the CEMS as a postdoctoral fellow under the mentorship of Dr. Mehmet Toner. Here, she applied her prior training in drug discovery in a new way to develop cocktail preservative solutions for whole blood that act by targeting multiple pathways of deterioration. She subsequently developed long-term storage methods for blood-derived cells using ultra-rapid vitrification. Now, as a faculty member at the CEMS, Dr. Sandlin's research focuses on the development of cryobiology technologies and application of these tools to preserve parasites and insects. Recently reported work includes the development of hydrogel beads for uniform cryoprotectant unloading, the development of high aspect ratio specimen containers to achieve ultra-fast cooling rates, and methods to vitrify parasites. Current work includes development of methods to enable spatio-temporal quantification of cryoprotectant loading, approaches to minimize cryoprotectant toxicity, and cryopreservation of whole organisms. Dr. Sandlin currently serves as the thrust co-lead for the Multiscale Thermodynamics of Water at the recently awarded Engineering Research Center (National Science Foundation) for Advanced Technologies for the Preservation of Biological Systems (ATP-Bio). To support her research program, Dr. Sandlin has received numerous grants from the National Institutes of Health and non-governmental organizations. Dr. Sandlin is also a current recipient of the MGH Claflin Distinguished Scholar Award.

Vision Statement: Cryobiology plays a critical role for the development and dissemination of biotechnologies that rely on living specimens. Technologies ranging from cell therapies, organ transplantations, *in vitro* biological models, species conservation efforts and beyond each benefit from improved methods of biostabilization. It is therefore no surprise that the demand for well-trained cryobiologists has increased sharply in recent years. I believe the Society for Cryobiology plays a critical role for meeting this demand by providing a platform to promote education, diversity, training, collaboration, and integration of commercial and academic entities, among others. Therefore, if elected as a Governor, my primary focus in this role would be on supporting workforce development activities of the SfC. This will be accomplished using three strategies. First, I would like to promote new and existing career development opportunities for trainees (i.e. undergraduates, graduates and post-docs). This can be accomplished through opportunities that increase the interaction of trainees with senior scientists and industry professionals, workshops to assist with

preparation of job application materials, and increased opportunities to participate in conference planning and session chairing. Second, given the multidisciplinary nature of cryobiology, I would like to increase engagement of non-cryobiologists from adjacent fields and industries. This would include professionals working in heat transfer, organ transplantation, immunotherapies, biotech start-ups and beyond. Engagement of these individuals will have a dual effect of increasing membership, while creating new opportunities for junior scientists to network with a diverse group of professionals. Third, I am committed to promoting an inclusive environment for scientists from a diverse range of backgrounds where individuals are welcomed into the community regardless of race, gender, physical ability, sexual orientation or economic status. This sense of inclusion is critical to fostering the development of a diverse workforce to meet the needs of society in general, and the wider cryobiology field in particular.

Declaration of Completing Interests: I have no competing interest in relation to the position for which I am a candidate.

Kristi Snyder, PhD

CPSI Biotech, USA

Biography: Dr. Kristi Snyder completed her doctoral research at Binghamton University in the joint laboratories of Dr. Robert Vanbuskirk and Dr. John G. Baust investigating both cryoablation and preservation of mammalian cardiac cell models. Her research interests centered on both sides of the cryo-conundrum, learning from preservation practices centered on cell and organ transplantation, flipping the script to improve cryoablation techniques for cardiac arrhythmias. Dr. Snyder has worked in industry for cryo-based companies since 2001, in several capacities from grants manager, global sales and product educator to Director of Operations and Principal Scientist.

At CPSI Biotech, Dr. Kristi Snyder heads the life science division, centered on the interface of cancer biology and cryosurgical intervention, seeking to understand the biological responses to low temperature exposure and signal transduction cascades. As a principal at a small company, she has many roles ranging from IT and HR to communications beyond work in the laboratory. She also championed CPSI's outreach programs to local secondary schools for STEM career exploration as well as working with Binghamton University, engaging biomedical engineering students for Capstone projects. The 2016 "STEMinists" cohort was awarded first place for their work and poster presentation. While her training has focused on cryosurgical research, she also has research interests in cryopreservation, hypoxia/reperfusion and organ transplantation.

Dr. Snyder's involvement with the Society for Cryobiology began 20 years ago as a first-time student attendee and travel award recipient. Dr. Snyder led the Society for Cryobiology annual meeting organizing committee in 2002 and received the Peter L. Steponkus Crystal Award in 2003 for her presentation of doctoral research. She was the Hope E. Hopps Award recipient at the World Congress on In Vitro Biology for her cardiac preservation work. Dr. Snyder continues to publish, author presentations, manage and contribute to grant programs in many areas of applied cryobiological research, ranging from bioprocessing to cryoablation.

Dr. Snyder has served on several non-profit boards (animal welfare) in many capacities ranging from member to Secretary to Board Chair over the past 10 years. Collaboration through committees, fundraising and coordinating transparent communication to the organization membership were key

elements of her efforts in board service. As volunteer Administrator for the American College of Cryosurgery, she served as lead on the conference coordination team for the 2013 and 2014 ACC annual meetings, including organizing a Conference on Land (Key Largo) and by Sea (cruise ship), each of which had sponsorship activities, multiple tracks and CME programs for attending physicians. Each of those experiences have shaped her professional development and given her a breadth of low temperature biology knowledge and opportunities to engage scientists across a broad spectrum of focus areas.

Vision Statement: The broad range of research disciplines brought together by the Society for Cryobiology is a strength and often a challenge. Maintaining diversity along academia and industry as well as research interest also drives the breadth and depth of publications within Cryobiology and the research presented at the annual meeting. Bringing together individuals of many different backgrounds from around the world assists young and experienced researchers to engage in new arenas and develop relationships and collaborations to continue pressing cryobiology into the future. My vision for the Society for Cryobiology is to continue promoting and creating programs that encourage these interactions and attract membership from scientists engaged in fundamental to applied cryobiological research.

If elected as a Governor for the Society of Cryobiology, I would seek ways to break down the silos within our research communities to facilitate open dialogue and promote peer-to-peer mentoring and support in both research and social atmospheres.

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Lindong Weng, PhD

Sana Biotechnology, USA

Biography: Dr. Lindong Weng is the Director, Cryopreservation at Sana Biotechnology, a preclinical stage company focusing on creating and delivering engineered cells as medicine for patients. Dr. Weng leads the cell therapy drug product team and oversees the process development of formulation, fill and finish (including cryopreservation), cryogenic storage, and thawing for multiple allogeneic cell therapy product candidates. Dr. Weng received his PhD in Mechanical Engineering from Dalian University of Technology. His PhD work developed thermodynamic models to predict water and CPA transport across cell membranes during freezing and characterized phase transitions of cryopreservation formulations using thermal analysis and molecular dynamics simulation. Dr. Weng conducted his postdoctoral research first with Prof. Gloria Elliott at UNC Charlotte and then with Profs. Mehmet Toner and Shannon Stott at Massachusetts General Hospital and Harvard Medical School. During his postdoctoral fellowships, he investigated the usage of ionic liquid-based formulations for dry preservation of biologics, developed methods for cryopreserving malaria parasites, explored the mechanisms and methods of ice nucleation catalysis and ice recrystallization inhibition, and developed microfluidic approaches to support the automation of the *in vitro* fertilization process. As a scientist working at the interface of biology, physical chemistry, materials, and thermodynamics in both academia and industry settings, Dr. Weng has authored or co-authored over 40 peer-reviewed journal articles, filed eight international patent applications, and given presentations at more than a dozen international conferences or symposiums. He has been a member of the Society for Cryobiology since 2010 and served in the program committee for the 55th Annual Meeting of the Society for Cryobiology

(CRYO2018). Most recently, Dr. Weng is serving as the guest editor for *Journal of Visualized Experiments* and *Frontiers in Physics*, organizing collections of elite research on cryopreservation.

Vision Statement: The first CAR T approvals were a major turning point for the cell therapy field. Now, companies are shifting their focus to the next wave, the allogeneic, off-the-shelf approaches, to tackle both the unmet medical needs and manufacturing challenges faced by autologous products. During the cell therapy 2.0 movement, cryopreservation has become increasingly critical for manufacturing cell products that can be truly off-the-shelf. Cryopreservation is currently the only viable option to bridge the temporal and spatial gaps between centralized manufacturing and point-of-use by extending the shelf life of cell products without compromising their identity, potency, and safety. I envision that our Society can play three important roles in the advent of allogeneic, off-the-shelf cell therapy. (1) SfC can take the lead in introducing cutting-edge innovations stemming from the field of cryobiology to the biotechnology industry, especially cell and gene therapy (CGT) developers or cryo-equipment and device manufacturers. (2) Across the research community, SfC can help raise the awareness about the emerging challenges faced by CGT companies during process development and GMP manufacturing. (3) The student and trainee members of SfC should become the top talent pool that recruiters from biotech companies will tap into when they are hunting candidates with deep cryopreservation expertise. I truly believe that, with a holistic action plan, our Society can be well positioned to fulfill these roles through its growing platforms, including annual meetings, webinar series, and its official journal *Cryobiology*. Working as a cryobiologist in a CGT company, I have been a strong advocate of interactions between fundamental research and industrial applications and am willing to lead from my seat to make them happen more frequently and effectively.

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