



Society for Cryobiology 2024 Election
Candidate Biographies and Vision Statements
Election Dates: October 14-28, 2024

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 (2025-2027)

- Kelvin Brockbank
- Marc Yeste Oliveras
- Robyn Osborne
- Estefania Paredes
- Ramon Risco
- Shangping Wang
- Yi Xu

Governors 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. The winners are the three top ranked candidates.

Candidates are alphabetized by surname.

Governor-at-Large Candidates (2025 – 2027)

Kelvin Brockbank, PhD

Tissue Testing Technologies LLC, USA

Biography: Kelvin has a BA and MA in Zoology from Trinity College, Dublin, Ireland and a PhD in Experimental Pathology from the Medical University of South Carolina. He is currently the Founder and CEO of Tissue Testing Technologies LLC; a Research Professor, Department of Bioengineering at Clemson University; and an Adjunct Professor,

Department of Comparative Medicine at the Medical University of South Carolina. His mission is “preservation of biological materials for restoration of patient health.” Central to this mission is the definition and design of cold chain conditions for living biological products. He has a broad background in low temperature biology with focus in two areas - subzero storage methods of cells and tissues and above zero hypothermic storage and transport of cells, tissues and organs. Kelvin has successfully managed company-sponsored and competitive grant funded projects in his more than thirty years of project management experience and maintained a high publication

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rate for a corporate scientist with 394 presentations, 38 US patents, 42 proceedings and book chapters and 151 peer reviewed publications to date. Funding agencies have included the NIH, the NIST-Advanced Technology Program, Cancer Foundations, the Department of Defense and various commercial contracts. His work has resulted in a clinical stem cell product for LifeNet Health, cryopreserved cardiovascular products for CryoLife and the LifePort Kidney Transporter for Lifeline Scientific. He also initiated research and development on SynerGraft decellularized tissue products for CryoLife and made significant contributions to a tissue engineered patch graft distributed by Organogenesis. Lifeline Scientific was successfully launched via an initial public offering on the London Stock Exchange with over 300,000 kidneys transplanted using the LifePort® kidney platform. His last company, Cell & Tissue Systems, was acquired in 2014 for its pancreas and liver organ perfusion intellectual property. A liver perfusion/transport device incorporating their liver intellectual property is presently being reviewed by the US Food and Drug Administration. Kelvin has been involved in regulatory filings for tissue products including investigational device exemptions (IDEs), premarket approval (PMA) and 510k applications. He was responsible for regulatory affairs and quality control at Lifeline Scientific during the early phases of the LifePort® Kidney Transporter development.

His current company, Tissue Testing Technologies LLC, is primarily supported by US Federal grants, commercial contracts, and GMP Unisol™ solution sales for research preservation purposes. Lead projects at his company include DMSO-free cryopreservation methods for stem cells and peripheral blood cells, ice-free vitrification of complex tissues, automation of cryopreservation protocols and optimization of hypothermic storage methods for cells, tissues and organs. The main focus in 2024 forward is developing cryopreservation protocols that result in heart valves that can grow with children and protocol automation.

Kelvin attended his first Cryobiology Society meeting in 1986 and has been a member since 1992 with frequent contributions to annual meetings including being on the organizing committee for the Atlanta Society meeting in 1993. He has been a frequent manuscript reviewer for the journal, past member of the Editorial Board, and is currently an Associate Editor of the *Cryobiology* journal.

Vision Statement: My major value to the Board of Governors is the many years of experience I have in legal and financial issues involved in running small companies. My career has been influenced by the contacts and friendships I have made in the Society starting with Greg Fahy in front of one of his posters in 1986. I have also enjoyed the opportunity to meet and work with students and young faculty members during my 32 years of Society membership and 38 years of Society meetings. I agree with other Society members that the goals of the Society should be to both promote the science to outside groups and to continue creation of a welcoming environment for members, new and old, including increased student and young investigator involvement and their retention. I also strongly support the diversity of research areas and people in the society. Over the years I have learned the most from plant and animal lessons during nature sessions at Society meetings and from attendees with diverse backgrounds that I have then applied to my own work. Being on the Board of Governors again gives me the opportunity to continue paying back the Society for the many things I have gained since 1986.

Where could the Society do more? I would like to continue efforts towards getting more industrial scientists involved in the Society. Increased financial support for our conferences would follow more involvement of industrial scientists. Furthermore, we should continue educating the world on low temperature biology. I have enjoyed the recent webinars and encourage the development of short courses and more

webinars on topics such as freeze tolerance, freeze avoidance, impact of warm and cold ischemia, cryopreservation, shipping, and any other issue important for so called “cold chain” issues related to storage and transport of biological materials. This will increase the Society’s exposure, recognition and membership as well as introduce new technologies developed by our members to other scientists and engineers who are still using archaic methods developed in the last century.

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

Marc Yeste Oliveras, PhD
University of Girona, Spain

Biography: I graduated with a Bachelor of Science (Biology) from the University of Girona, an MSc in Biotechnology, and a European PhD in Reproductive Biology. I also graduated with a Bachelor of Laws (LLB) and a Bachelor of Political Science and Sociology (extraordinary award for the best academic score) from the National University of Distance Education (UNED) and read additional courses of the Bachelor of Arts (BA) in Philosophy.

I was a Visiting Researcher at the Institute of Zoology, Zoological Society of London (2006-2007) and was promoted to Assistant Professor of Cell Biology at the Faculty of Human Medicine, University of Girona in 2008. From 2007 to 2010, I was the Research Manager and Technical Director at the Centre for Research on Animal and Human Reproduction (TechnoSperm), University of Girona. In 2011, I moved to the Department of Animal Medicine and Surgery, Autonomous University of Barcelona, as a Juan de la Cierva Postdoctoral Research Fellow, and lectured on Reproductive Technology and Physiology of Obstetrics and Animal Reproduction at the Faculty of Veterinary Medicine. In 2014, I

joined the Nuffield Department of Women’s and Reproductive Health, University of Oxford, as a Senior Postdoctoral Research Fellow (Marie Curie) and started to lecture in the MSc in Clinical Embryology (University of Oxford), in which I am still involved. In 2016, I returned to the University of Girona as a Senior Research Fellow (Ramón y Cajal; selected in the first position across Spain in the 2015 Call).

Currently, I am the Director of the Institute of Food and Agricultural Technology (INTEA; www.udg.edu/en/instituts/intea), University of Girona, and an ICREA Academia Professor of Cell Biology at the Department of Biology. I am also the Director and Principal Investigator at the Centre for Reproductive Biotechnology (TechnoSperm; www.technosperm.com). I teach at the Faculty of Medicine, the Faculty of Nursing, the Faculty of Sciences and the Polytechnic School, and for the MSc courses in Food Biotechnology, and in Molecular Biology and Biomedicine. In addition, I am a Guest Lecturer at the University of Oxford (UK), the University of Santiago de Compostela (Spain), the University of Sao Paulo (Brazil), the University of Alicante (Spain), the Antonio Nariño University (Colombia), the Federal University of Lavras (Brazil) and the University of Murcia (Spain). Overall, I have lectured over 17 academic courses (since 2008), accumulating > 2,700 hours of teaching.

Additionally, I am Editor-in-Chief of Animal Reproduction Science (Elsevier); Senior Editor of Scientific Reports (the multidisciplinary journal of the Nature publishing group); Associate Editor of BMC Biology (BioMed Central); Reproduction, Fertility and Development (CSIRO Publishing); Frontiers in Physiology and Frontiers in Endocrinology (Frontiers); and Editorial Board Member of Theriogenology and Cryobiology (Elsevier). I was previously the Chair of the International Conference on Boar Semen Preservation (2019-2024), and a member of the Board of Governors of the Association for Applied Animal Andrology (AAAA, 2018-2020).

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Since I started my academic career in 2004, my research has tackled different angles of Reproductive Biology in mammals (encompassing humans and animal models: pigs, cattle, horses, donkeys, sheep, mice, cats and dogs); sperm physiology (including sperm capacitation, with particular reference to mitochondrial function and how like affects that function); interactions of sperm with epithelial cells from different reproductive tissues (epididymis and fallopian tube/oviduct); effects of exogenous factors (diet, photoperiod...) upon sperm quality and reproductive performance; presence and growth of microbes in semen and implications for its preservation (including removal of antibiotics from preservation media); cryopreservation of gametes and embryos; genetics of infertility; oocyte activation deficiency; effects of aging on reproductive health; infertility; iatrogenic damage on gametes from ART; in vitro maturation of oocytes and fertility preservation.

I am a Fellow of the Royal Society of Medicine (RSM) in the UK, and a member of the European Society of Domestic Animals Reproduction (ESDAR), the Spanish Society of Animal Reproduction (AERA), the European Federation of Animal Science (EAAP), the Society for Cryobiology (SfC) and the European Society of Human Reproduction and Embryology (ESHRE).

My track-record includes about 400 publications: >250 papers (83 in D1-ranked journals, 218 in Q1-ranked journals and 238 in T1-ranked journals; 132 as first, corresponding, or last author; 200 as first, second, second-to-last or last author) and >130 abstracts in SCI/JCR-indexed journals, mostly Q1-ranked. In addition, I have authored five articles in non-scientific dissemination journals, 18 book chapters (editor in three), and >260 contributions to congresses (>30 as invited, plenary speaker), and I am a patent inventor. I have taken part in more than 100 research grants and contracts with companies (national and international), including funding from the

European Commission (FP7, H2020 and Horizon Europe programs), retaining the PI role in >40 (attracting more than €2.5M in funding as PI). Thus far, I have supervised 16 PhD students (nine with international mention and five having received extraordinary awards, plus four ongoing), 15 post-docs, 30 MSc students, and >60 undergraduate students.

My teaching and research activities have been recognized at both national and international levels. Since 2020, I have consecutively been included in the World's Top 2% Scientists list, a prestigious ranking that highlights the most influential researchers across a broad range of scientific fields. The ranking is elaborated by Stanford University in collaboration with Elsevier and is based on data from Scopus. Moreover, I have been recognized as a Chartered Biologist (CBiol) by the Royal Society of Biology, and as a Chartered Scientist (CSci) and Chartered Science Teacher (CSciTeach) by the Science Council (UK). In addition, I was elected as a Fellow of the Higher Education Academy (HEA, UK) in 2015, Fellow of the Royal Society of Biology (RSB, UK) in 2020, and Fellow of the Young Academy of Europe (YAE) in 2021. Since 2023, I am a Member of the Royal European Academy of Doctors, and the Secretary of the Young Academy of Europe.

Vision Statement: I joined the Society of Cryobiology in 2017 and have been on the Editorial Board of Cryobiology Journal since 2018. I am passionate about science, and my research is devoted to Reproductive Biology and Infertility in humans and other mammals, which includes cryopreservation of sperm, oocyte and embryos, and fertility preservation (testicular and ovarian tissue cryopreservation). I would be delighted to join the Board of Governors of the Society of Cryobiology, as I believe that I could learn a lot from this dynamic and innovative Society and that, as a young and already tenured scientist, I could much contribute to that initiative with own views and experience.

As a researcher working in academia, I have always been committed to the development of science policies in Europe, with special emphasis to the development of the careers of Early-Stage Researchers. Not only do these principles guide my behavior, but as supervisor of MSc and PhD students and post-docs, I have always tried to convey these values, supporting the development of their careers. In addition, I have participated in the organizing committee of different international conferences about Reproductive Biology, retaining the position of Chair in some, so that I could also bring my experience to this side.

At the Society of Cryobiology, I am now part of the Membership Committee, which is chaired by Dr Shannon Tessier, the Secretary of the Society of Cryobiology, and has the mission to see how the number of members can be increased. I like this initiative and learned new things. I truly believe that if I were elected to the Board, I would be honored to participate in other activities of the Society. I do think that we have the challenge to attract early career stage researchers as well as setting initiatives to attract other researchers that, mainly working in other fields they also do some cryo work but do not know us. I also think that fertility preservation is essential in the field of Cryobiology, and it would thus be good having someone working in that area in the Board of Governors

In my view, the Society is unique and has already done an amazing job, giving cryobiology science the place it deserves. Thus, I suggest devising additional strategies to expand our area of influence, while keeping everything that has been done thus far. Some actions I would propose: a) increasing the interaction with policymakers articulating the voice of Cryobiology researchers, trying to influence the decisions affecting the agenda of Science as set by national governments; b) participating in evidence-based policy actions aimed at enhancing the relevance of Cryobiology science as a research field; c) advocating for Open Access Science; d)

fostering networking, exchange, collaboration and solidarity among researchers from different disciplines and countries; e) supporting PhD students and post-docs that work in Cryobiology and will play a relevant role in the coming years; e) expanding the dissemination of Cryobiology science (outreach activities); f) exploring the possibility of setting a Task Force aimed at addressing how Artificial Intelligence may shape the field of Cryobiology in the near future; and g) supporting initiatives to mitigate the gender bias in research, which can also be of relevance for the Cryobiology field.

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Robyn Osborne, PhD

Duke University Medical Center, USA

Biography: Robyn Osborne serves as the Assistant Director of Substrate Services Core and Research Support (SSCRS) in the Department of Surgery at Duke University, North Carolina. Her career in basic scientific, clinical, and translational research spans almost three decades and is influential in her understanding and passion for pre-analytical variables and the impact they have on downstream assays and results. She was instrumental in spearheading Good Clinical Laboratory Practices (GCLP) at SSCRS and she currently serves as the quality lead in the Department of Defense Surgical Critical Care Program (SC2i). Her responsibilities included guiding the SC2i laboratories in the Department of Surgery at Duke University, Walter Reed Medical Center and Emory University to GCLP compliance to ensure that quality samples are available to support precision medicine in wounded warriors. She is responsible for managing all quality control aspects for the Substrate Services Core and Research Support Laboratories and in 2023 obtained accreditation through the College of

American Pathologists for the Biorepository Accreditation Program.

Robyn spent her early years at Trimeris, INC evaluating and characterizing peptide fusion inhibitors for a variety of human viruses including Human Parainfluenza, Respiratory Syncytial Virus, Hepatitis C and then, as part of the team that identified HIV fusion candidates, helped to send Fuzeon® (Enfuvirtide) to the market. In 2008 she joined the Duke University Translational Research Institute where she performed multi-color flow cytometry including T-cell intracellular cytokine assays, maturation and activation panels, MDSC panels and worked to develop PhosFlow assays that can be used to examine phosphorylation of intracellular proteins in cell signaling pathways. In 2015 she had the opportunity to help build a centralized bioprocessing and storage core facility and joined the team which is now known as SSCRS and regularly represents SSCRS and the Department of Surgery at conferences where she speaks about the importance of sample integrity and quality and works to educate investigators on the impacts these variables have on assay data fitness and reproducibility.

Robyn earned her BS at the University of California, Davis and her MS at North Carolina State University.

Vision Statement: As a biobanker, my perspective towards cryobiology may be a little different than others within the society; my primary focus is not on the research analysis being executed, but, instead, on the pre-analytical variables that impact the quality and integrity of the samples that are being tested, monitored or measured. It is the whole “Garbage In – Garbage Out” mantra; for without quality components, an assay may fail or produce erroneous results that cannot be repeated.

As a governor for the Society of Cryobiology, it will be my responsibility to utilize the talents I bring with me to work for the betterment of the society as a whole. My primary goal will

be to use my knowledge and experience to promote the importance of sample integrity and quality and to educate members on the impacts these variables have on assay data fitness and reproducibility. I see this as a two-step process. The first step will be to provide more education and knowledge of quality metrics and practices; ISBER’s Best Practices and Good Clinical Laboratory Practices (GCLP) are both great resources and by increasing the presence of experts in these areas at our annual meetings and webinars we can provide more opportunity for our members to learn the best ways to implement these in their labs. The second step focuses on the importance of standardization. A key component of any quality management plan is the standardization of operating procedures and protocols. This step will involve identifying the general protocols that are most commonly utilized by the society and compile what would be considered “Gold Standards” for each method. The ultimate goal will be to create a resource of gold-standard protocols that can be accessed by all society members.

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Estefania Paredes, PhD
Universidade de Vigo, Spain

Biography: Estefania Paredes is an Assistant professor at the Universidade de Vigo, Spain. She received a degree in Oceanography from Universidade de Vigo in 2008. Estefania received her PhD in Oceanography in 2014 with several awards and honours from her own university and the Royal Academy of Doctors of Spain as well as a patent. Her PhD focussed on the Cryopreservation of marine invertebrate early-life stages and the development of applications for Ecotoxicology and Aquaculture. During her PhD years she enjoyed several research stays in New Zealand at Cawthron Institute under the direction of

Dr. Serean Adams and in the USA at the University of Tennessee under the direction of Dr. Peter Mazur and his research fellows, Dr. Stanley Leibo and Dr. Fritz Kleinhaus. She moved to Mazur's lab in 2014 for her postdoctoral Fellowship until 2016. Here she focussed her interest on vitrification and ultra-fast laser warming working in several test organisms like mice, zebrafish or yeast. During her postdoc years in the US, she participated in projects funded by the NIH or SBIR from the US government. In 2017 she moved back to Spain and became involved in several projects that obtained H2020 European funding to start her own lab as young faculty at the marine research station ECIMAT that belongs to the Universidade de Vigo. She led the Marine Biological Resource Functional Preservation Service at the Universidade de Vigo for three years (2017-2020), which is tightly involved in the EMBC "European Marine Biological Resource Centre". In 2020 she received a Juan de la Cierva funded position to continue her work at the same University as a first step of the tenure-track path in Spain and has been recently awarded a Ramon y Cajal tenure track contract from the Ministry of Science in Spain. She currently serves as Associate Professor to the UNESCO chair in Cryobiology as well. She is the president of the newly created Spanish Society for Cryobiology (SECRIO).

After being in the research field of cryobiology since 2008 when she started her PhD, Estefania's current research interests are: the development of cryopreservation protocols for marine organisms using the latest technology and methods available within the cryobiology community; studying the specific challenges of applying vitrification to aquatic species; and furthering the basic knowledge on marine organism's cells and behaviour during cryopreservation both from the theoretical and practical point of view. Estefania has worked in developing cryopreservation protocols for over a dozen species of marine invertebrates, over 50

species of marine microalgae, mollusc cancerous cells, mice, zebrafish and yeast. She has been a member of the Society for Cryobiology since 2010 and she has been awarded with the student travel award several times and later she has organized, chaired and co-chaired several sessions in the 2015, 2016, 2019 meetings in Ostrava, Ottawa and San Diego, as well as during the online meetings in 2020 and 2021. Dr. Paredes has also been active with the International Young Cryobiology Researchers (ICYR) group, she was involved in different parts of the organization of the ICYR activities in 2016 and 2017. She currently serves as Chair of the Awards committee.

Vision statement: The cryobiology research community has two very unique qualities. First of all it is highly interdisciplinary, which is a source for new approaches and ideas. Secondly, but not less important, the cryobiology research community is quite tightly interconnected and interrelated and that is mostly due to the role of the Society for Cryobiology and its efforts to provide an open environment for researchers to interact, exchange ideas and work together. I believe these two factors must be treasured and everyone in the Society has/knows something that will contribute to the advancement of the field and that makes us stronger as a discipline.

I would be honoured to serve the Society as a Governor-at-Large for another term. If elected, I will continue pursuing the following initiatives: I would like to keep promoting and caring for the role of the student members as I have been these last years, and I will continue my dedication to the Awards Committee. I would also like to promote and reinforce the presence on the Society in social media and Media in general, as a means for the younger members to keep in touch and minimize the gap between professors and students to facilitate interaction. Finally, I am also interested in enhancing the role of postdocs and young faculty in the society by encouraging them to take part in the

committees and ensure their continuity in the Society along their career, I have already been doing so by encouraging them to take part as jurors for the Best Student Poster Competition for example.

I strongly believe that Investing in the actual students, postdocs and young faculty that, will become the leaders of their fields in the future, is a good way to ensure the long-term good health of the Society.

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Ramon Risco, PhD

University of Seville, Spain

Biography: Ramón Risco, Ph.D. was born in 1966 in Seville, Spain. He studied three years of Physics at the University of Seville, and two years in the specialty of Theoretical Physics in Granada. He was granted by the Nuclear Energy Board (Madrid) to study problems related to Nuclear Fusion by magnetic confinement. He earned his PhD working with Franco Selleri (Istituto Nazionale di Fisica Nucleare, Bari, Italy) and Anton Zeilinger (Institute für Experimental physik, Innsbruck, Austria), where he works on the problem of non-locality in Quantum Physics and Remote Quantum State Preparation (a primitive version of Quantum Teleportation).

He created the research group FQM-239 of the Junta de Andalucía, Foundations of Quantum Mechanics. In 2002 he redirected its scientific activity towards biotechnology, specifically to the cryopreservation of biological material. He created the CryoBioTech Research Group. He did much of his initial research in the field in cryopreservation at Harvard University (Boston, USA), at the Center for Engineering in Medicine (Boston, USA), under the supervision of Prof. Mehmet Toner.

He investigates the cryopreservation of large human organs, tissues and isolated human cells. In 2013 he founded the “spin-off”

SafePreservation, focused on cryobiology in assisted reproduction.

He authored and published the book *The Einstein, Podolsky y Rosen*, coauthored more than 6 books on Quantum Mechanics, Cryopreservation, and published in multiple journals among others, MIT Technology Review, Cryobiology, Journal of Assisted Reproduction and Genetics, Economist, Asebir, Medicina Reproductiva y Embriología Clínica, Human Reproduction, The Journal of Physical Chemistry, European Physical Journal D. Atomic, Molecular, Optical and Plasma Physics, Foundations of Physics, Physical Review, Cryoletters and many others.

Vision statement: Cryobiology plays a vital role in many aspects of our society. However, this role often goes unnoticed. If elected, I will focus my efforts on the following aspects: 1) Engaging with policymakers; 2) Increasing interaction with the business sector and companies; 3) Promoting the development of cryobiology among young people; 4) Seeking to establish a university seed where cryobiology is taught as a regular discipline within a degree program; 5) Strengthening relationships with other similar societies, such as SeCrio or SLTB.

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Shangping Wang, PhD

Clemson University, USA

Biography: Shangping Wang is an Assistant Professor in the Department of Bioengineering at Clemson University and a faculty member of the Clemon-Medical University of South Carolina (MUSC) Bioengineering Program at MUSC in Charleston, SC.

Dr. Wang earned her Bachelor's degree in Biomedical Engineering (BME) at Capital Medical University in Beijing, China, focusing on medical imaging processing. She continued her education by completing a Master's

degree in BME at the Institute of Multiphase Processes at Leibniz University Hannover in Germany, where she immersed herself in Cryobiology and Cryopreservation. Subsequently, she joined Prof. Willem F. Wolkers' lab at the Research Center for Translational Regenerative Medical (REBIRTH) at Hannover Medical School in Hannover, Germany, as a PhD student. Her research focused on developing freeze-drying methods of decellularized porcine heart valves. Under Prof. Wolkers' mentorship, Dr. Wang developed a Fourier transform infrared (FTIR)-based diffusion model to study mass transport mechanism of lyoprotectants in cardiovascular tissues. This research culminated in the development of optimal freeze-drying protocols that minimized damage to the heart valve conducts. She earned her PhD degree in Regenerative Sciences from Hannover Medical School in 2015. Following her PhD, Dr. Wang pursued postdoctoral training with Prof. Gloria Elliott at University of North Carolina at Charlotte (UNCC), where she expanded her research into biopreservation. Her postdoctoral work included developing microwave-drying technology, formulating non-toxic protective agents, enhancing cold preservation solutions to extend the viability and functionality of blood vessels, and devising strategies to protect the DNA integrity of immature oocytes at ambient temperature.

In 2020, Dr. Wang joined the Department of Bioengineering at Clemson University as a Research Assistant Professor and was promoted to tenure-track Assistant Professor in 2022. She established the Biotransport and Biopreservation Laboratory within the Clemson-MUSC Bioengineering Program in Charleston. Her research now focuses on developing long-term preservation technologies for large-sized musculoskeletal tissues to enhance clinical applications and research biorepositories.

Dr. Wang serves as a NIH COBRE Research Project Leader (RPL) for South Carolina Translational Research Improving Musculoskeletal Health (SC TRIMH). She also

holds funding from the Defense Health Agency (DHA), MTF Biologics, the Associate American Tissue Banks (AATB), and has served on review panels for MTF Biologics and Congressionally Directed Medical Research Programs (CDMRP). Dr. Wang has also collaborated with industry partners, including Tissue Testing Technologies LLC, and TDA Research Inc, to translate preservation technologies into clinical applications.

Vision Statement: Since joining the SfC as a student member in 2011 and transitioning to an individual member in 2020, I have greatly benefited from the numerous opportunities the society has offered to interact with and learn from leading experts. This has significantly influenced my academic and professional development. With my diverse educational background from multiple countries, combined with my role as a faculty member, I am deeply committed to advancing the field of cryobiology. My vision as a Governor of the SfC is to enhance its impact on a national and international scale across education, research, and industry.

In education, Cryobiology, with its broad range of principles and applications, is extremely relevant to students from diverse disciplines such as biology, chemistry, physics, biomedical engineering, and mechanical engineering. I plan to organize seminars, webinars, and workshops that feature cross-disciplinary talks and special discussions to engage more undergraduate and graduate students with our society. Additionally, I am exploring the possibility of expanding these educational efforts to the K-12 level, which could also support junior investigators in advancing their careers and securing career awards.

In research, I aim to contribute by organizing seminars, workshops and social events focused on funding mechanisms, grant writing, core facilities, resources, and collaborations, specifically tailored for young researchers. We will also invite these young researchers to present their work and discuss their current support needs and opportunities they are seeking.

In industry, I envision the SfC as a leading catalyst for groundbreaking research and technology transfer. My goal is to strengthen our community by integrating cutting-edge scientific research with practical applications that address critical challenges in healthcare. I aim to foster partnerships between academia, industry, and regulatory bodies to enhance the societal impact of our work and ensure that innovations in cryobiology reach the market and clinical practice. This approach will not only advance our field but also potentially expand job opportunities for our students.

In conclusion, my candidacy for a Governor of the SfC is driven by a vision to foster a dynamic, inclusive, and innovative community that pushes the boundaries of what is possible in cryobiology. Through strategic initiatives in education, research, and industry, I am committed to nurturing the next generation of cryobiologists, expanding international collaboration, and bridging the gaps between scientific discovery and real-world applications. This commitment aligns strongly with my career development plan. By leveraging my diverse background, I am dedicated to empowering our members and enhancing the global impact of the SfC.

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Yi Xu, PhD

Institute of Biothermal Science and Technology, University of Shanghai for Science & Technology, China

Biography: Dr. Yi Xu is a full professor at the University of Shanghai for Science & Technology (USST) and the Director of Institute of Biothermal Science and Technology at USST.

Dr. Xu received his B. Eng (in 1999) and M. Eng (in 2002) in Mechanical Engineering from China University of Mining and Technology, and his PhD (in 2005) from USST under the

supervision of Professor Tse-Chao Hua (who studied in Professor Cravalho's lab at MIT during 1982-1984, and Prof. Hua has been thought as the pioneer and founder of cryobiology in China), specifically focusing on cryopreservation of artery and thermal stress during the freezing or thawing process. He studied at Professor John C. Bischof's lab at the University of Minnesota in 2013 as a visiting scholar. Recent years, he has led several projects funded by the National Natural Science Foundation of China to investigate the cryo-injury mechanisms or develop novel methods for cryopreservation. During the last decade Dr. Xu has collaborated with many regenerative medicine scientists, clinicians, and microbiologists to cryopreserve biological samples such as living cells, tissues, organs, and microbial resources. He published over 100 peer-reviewed papers on cryopreservation in scientific journals. He's also been an invited reviewer for many journals including CryoLetters, Cryobiology, Technology in Society, Scientific Reports, Langmuir, International Communication in Heat and Mass Transfer, ACS Sustainable Chemistry & Engineering, ACS Applied Materials & Interfaces, Advanced Science, Advanced Healthcare Materials, etc.

Dr. Xu has been a member of the Society for Cryobiology since 2004. He is an active leader and member of some academic societies in China, such as serving as Governor of the Biological Resource Management and Utilization Branch of the Chinese Preventive Medicine Association, Governor of the Tenth Council of Chinese Association of Refrigeration.

Vision Statement: My first CRYO meeting was CRYO2004 in Beijing, China, which offered me great opportunities to meet with experts all over the world in the field of Cryobiology and exchange ideas with them. That wonderful experience also led me to confirm cryobiology as my research field for my academic career. Since then, I have been working on cryopreservation for more than 20 years. One top lesson that I learned from my research experience is that cryobiology is such an

interdisciplinary subject that mostly thrives from the communications and collaborations among scientists from various fields. Especially, the fast developments of cell therapy and regenerative medicine raise an urgent yet unmet demand for cryopreservation technology. Also, the preservation and protection of biological resources have become an essential need for the sustainability of our nature and human society. The Society for Cryobiology has been a very important platform for academic communications and exchanges, and I hope it should also become a platform for technology transfer.

If I am elected to be a board member, I'd work with fellow board members to pursue the following goals: (1) Promoting the interdisciplinary communications and collaborations among researchers with different backgrounds, generating more wisdoms to address those scientific mysteries in cryobiology, and developing novel technologies for cryopreservation; (2) Promoting the communications and collaborations between academia and industry, not only transforming the innovative technology into industry for applications, but also bringing the practical problems in industry to scientists and inspiring the innovations in academic research; (3) Encouraging and helping young talent to grow and succeed in this field since they are the future of the cryobiology field; (4) In particular, as a scholar from China, I will work hard with my colleagues to recruit more young talents to the cryobiology field, promote the participation of scholars from China to the SfC, upgrade the communications and exchanges between the Asia-Pacific region and others, and try to build up a working mechanism for better academic exchanges.

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