

Advancing Stem Cell Science and Translation

Stem cell research remains an exploding area of investigation with the potential to change human health. As the field continues to grow, so does the ISSCR and its role as the world's largest professional organization of stem cell scientists. Our mission to promote good science and responsible clinical translation has never been as important as it is today.

In all areas of stem cell science and translation, the ISSCR seeks to promote best practices and high standards, and the ISSCR's recently published "Guidelines for Stem Cell Research and Clinical Translation" will be instrumental for researchers around the world (<http://www.isscr.org/guidelines2016>). These guidelines are the culmination of 2 years of work from an ISSCR task force of scientists, bioethicists, and clinical researchers. Under the leadership of bioethicist Jonathan Kimmelman and board member George Daley, the task force reviewed and updated the ISSCR's "Guidelines for the Conduct of Human Embryonic Stem Cells" (2006) and "Guidelines for the Clinical Translation of Stem Cells" (2008). At the ISSCR's 2015 meeting in Stockholm, the ISSCR presented a draft document of the updated guidelines and in the following months solicited feedback from many stakeholders around the world, including scientific societies, regulatory authorities, patient advocacy organizations, and funding agencies. The result—the "ISSCR's Guidelines for Stem Cell Research and Clinical Translation" (2016)—offers a set of standards that achieve rigor, appropriate oversight, and transparency in all aspects of stem cell research, as well as protecting patient welfare and promoting social justice. In Daley et al. (pp. 787–797) in this issue of *Stem Cell Reports*, the task force highlights the core principles embodied in the guidelines and outlines key deliberations and recommendations. We look forward to continuing the dialog on these issues that are central to our goal of improving human health through stem cell research.

Delivering the promise of stem cell research to the public will require the involvement of many stakeholders. The ISSCR has been working to strengthen interactions with relevant groups outside of the academic scientific community, including entrepreneurs, investors, biotech companies, pharmaceutical companies, and the philanthropic community. In January of this year, working with the society's Global Advisory Council, we brought representatives of these groups together with ISSCR leaders for an inaugural "Nucleus Forum" to explore the disruptive and transformative technologies that are likely to arise in the next 10 years.

Over the past year, the ISSCR also launched a public policy program that will allow the ISSCR to play a leadership



Sean Morrison, ISSCR President, 2015–2016

role in supporting the ability of researchers worldwide to perform stem cell research and to translate that research to benefit patients. We were delighted to welcome Policy Director Kevin Wilson to the ISSCR staff. Kevin served as policy director for the American Society for Cell Biology for 14 years and is a veteran of stem cell policy battles in the United States. You may have seen the policy briefings that Kevin sends out every few weeks, keeping the ISSCR membership abreast of policy developments that affect the stem cell and regenerative medicine communities worldwide. We have also formulated an ISSCR Public Policy Committee that works with Kevin to identify policy issues around the world which have the potential to influence our field or our ability to efficiently and rigorously translate good science. Kevin then works with the membership to educate policy makers as they craft effective legislation.

Although it is only 9 months old, the ISSCR policy effort has been very active. We developed a policy endorsing fetal tissue research, an area of research under threat in the United States. A member of the ISSCR Public Policy committee, Larry Goldstein, testified before the United States Congress on Capitol Hill. We have also engaged with policy makers in the United States regarding legislation that would overhaul Food and Drug Administration regulation of cell therapies and with policy makers in the



United Kingdom regarding changes to its approach to the delivery of new therapeutics. Our policy program will allow the ISSCR to play a leadership role in advocating for policies that promote integrity in biomedical research and ensure stem cell treatments are safe and effective before they are sold to patients. As these efforts move forward, we can expect additional engagement by the ISSCR in policy matters around the globe.

In concert with the new policy initiative, we are also overhauling our communications program. Anne Nicholas joined the ISSCR in April as senior communications manager. She previously served as director of media and communications for the Society for Neuroscience and in a number of communications management roles at the American Bar Association. Anne has a background in broadcast journalism and was a producer and on-air host on C-SPAN. In her short time at the ISSCR, she has successfully released the ISSCR guidelines to the press and developed the press program at the annual meeting. I am pleased to report that news about the guidelines was picked up by media outlets around the world, including in China, India, South Korea, Australia, Europe, and North America, and we continue to see articles that refer to the new guidelines. Anne will continue to encourage balanced communications about the promise of new stem cell research and therapies so the public can have appropriate expectations. In addition, Anne will be building and streamlining member and field-facing communications to increase the value we provide to members.

The communications program will take advantage of ever-growing media channels that can help reach new audiences around the globe. The ISSCR will continue to expand its social media presence, engaging with members, the field, and the public in a variety of formats that encourage sharing important science news and information about our work. In the coming year, the ISSCR will introduce a redesigned website that will serve as a key source of information about the society and its support for members and the field.

The public-facing informational website, “A Closer Look at Stem Cells” (<http://www.closerlookatstemcells.org>), plays a central role in ISSCR’s communications efforts. Launched with new content and a new look in April 2015, the site provides key background information for

the public about stem cell science and its translational applications. This month, the ISSCR launched a Spanish-language page within the “A Closer Look at Stem Cells” website that offers many of the website’s resources, making information about stem cell science and medicine accessible to a wider international audience. Increasingly, the site is promoted to the media as a source of information and to the public via social media and other channels. These efforts will continue and will focus on growing audiences around the globe.

Stem Cell Reports is another arm of the ISSCR’s efforts to provide voice and visibility to progress in the field. I would like to acknowledge the driving force behind the journal, Editor-in-Chief Christine Mummery; Associate Editors, past and present, Nissim Benvenisty, Thomas Graf, Hideyuki Okano, David Scadden, and Amy Wagers; and Managing Editor Yvonne Fischer. I congratulate them on their delivery of strong editorial leadership, providing fast and fair review and publication of well-documented stem cell research and its applications.

With this issue of *Stem Cell Reports*, we honor Paolo Bianco (1955–2015), a member of the recent ISSCR guidelines effort, a co-recipient of the 2014 ISSCR Public Service Award, and a staunch supporter of rigor in science and accurate communication. In this issue is an article by Riminucci, Robey, Bianco, and colleagues that celebrates Paolo’s legacy by clarifying the potential of mesenchymal stromal cells from different tissues in vivo (Sachetti et al., pp. 897–913).

This year marks the tenth anniversary of induced pluripotent stem cells (iPSCs). In this issue, you will find a diverse range of research articles using iPSCs, including descriptions of an enhanced reprogramming mechanism, disease modeling, and directed differentiation for therapeutic purpose, that demonstrate the far-reaching implications of this breakthrough technology.

We hope you enjoy the research presented within these pages and pause to reflect on the tremendous progress we have made over the past 10 years as well as what we can accomplish over the next 10 years.

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