ISCT 20th Anniversary Annual Meeting Paris, 23-26 April 2014

Sometimes meetings can quickly become a blur once we get back to our daily grind. We thought it would be useful for some of us who were lucky enough to attend the Annual Meeting to take some time to reflect on our experiences there, and to share with those who were unable to attend. Remember that full presentations for many speakers are available to meeting delegates, and ISCT members will get access to the presentations beginning in July 28, 2014. We hope to see you in Las Vegas next May for another successful and stimulating Annual Meeting. We hope you enjoy this gathering of thoughts and impressions of the Annual Meeting from several of the delegates.

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Finally I made it to an ISCT meeting in Europe! The long-haul flight was worthwhile to be in Paris in the Springtime and catching up with so many friends from near and far. My meeting started on 23rd April with the now Annual Global Regulatory Affairs Workshop. It was a hard choice between GRP, Flow Workshop and the FACT training sessions all on offer at the same time. We took the opportunity to squeeze in a short meeting for delegates from the Australia and New Zealand Region to meet each other and connect faces to names.

Ah-Hah Moments.
• Stefan Miltényi’s dream – a roomful of his devices that will reduce the cell processing costs by reducing staff, but only after a huge capital outlay.
Continued buzz about the promise of gene therapies, including CAR-T cells particularly for B-cell malignancies, but the apparent absence of Novartis and Juno.

Lightbulb moment that an early product approval will not help revenue stream for the payers if the reimbursement strategy has been overlooked or lags behind. Without payers the manufacturer might as well pack up, so it is a good idea to build reimbursement requirements into the pivotal trial, and to start to get the codes worked out.

Every country thinks that they have the most complex system to navigate.

“Cost of Care” impact of new products are often not evaluated.

The eye is still a good target

Many countries are investing in Cell Therapy infrastructure.

In many cases the science and rationale still lags behind the progress with clinical evaluation.

The Ethics in Research workshop was a fantastic idea and the EU research funding model is an enviable one.

Unproven therapies are all around us. From the maverick doctor to the full pharma clinical development program. What we need is a risk adapted model to allow patients the right to information, to make informed consent and to seek treatment. Language and dialog are essential to inform.

Above all we need to be realistic about timelines and the scientific process to demonstrate product efficacy.
ISCT Paris, which took place in April, was indeed an incredible meeting. Time flew and, overall, audience engagement was high not only during the sessions, but also in the booth area where vendors and participants had the opportunity to see and experience new products and services for the advancement of the industry.

I had the opportunity to participate in some of the sessions. Both the intensity and the amount of information to be absorbed were incredible. One I would like to highlight is on reimbursement strategies. Michael May from CIRM spoke about the importance of including reimbursement strategies early in the cell therapy development process. Understanding the reimbursement process is of utmost importance. In Canada, in a fixed budget system, reimbursement is "complicated". There is a need to recognize both the opportunity to recoup the investment as well as the value proposition when other therapies for the same indication exist on the market. They have a very systematic approach for evaluating reimbursement options for early-stage cell therapies in line with patients' needs. During that same session, Margaret Parton (from the UK’s NHS) highlighted that negotiations are typically based on cost instead of value. The message was clear: when implementing strategies for reimbursement for cell therapies, evidence and data for their value and effectiveness needs to be gathered from the very start.

Another very enlightening session on Ancillary Materials, with Lynn Csontos and Jennifer Solomon, highlighted the importance of language, labeling and quality harmonization between continents. The session, co-sponsored by FACT, brought to light the need for a workshop to discuss this subject in more depth. The session, in proposed partnership with USP, would answer such critical questions as when cGMP ancillary materials are needed and what the real meaning of cGMP within this context is, with the aim of bringing clarity to an otherwise murky subject.

During Bill Milligan’s session on Cost of Goods (COGs), Bob Preti (PCT) discussed the key impact of the COGs on the overall process. It was clear to me that the need to understand and streamline the process as a whole is critical. Evelien Stalmeijer pointed out the need of cost modeling, by considering and adding up components within facility design, process, capacity and supply chain areas. Indeed, failures in cell therapies occur mostly because of the high COGs and uncontrolled process variability.

In the T cell session, Knut Niss pointed out that in autologous cell therapy, the process is the product, which linked nicely to Lee Buckler’s session on building a globally successful cell therapy product, where Cardio3 and Promethera, currently in phase 3, spoke about an interesting model of autologous kits delivered to hospitals.

Overall, the meeting was engaging and productive — an opportunity to glance at the industry's growth and direction. I can't wait for our next Annual Meeting in Las Vegas. See you there.
Varda Deutsch, PhD  
Co-Chair, Quality & Operations Track  
Member, ISCT Laboratory Practices Committee  
Hematology Laboratory Director  
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The ISCT 20th meeting in Paris was indeed superb. The meeting was well organized with a good balance between academia and industry. The quality and operations track was designed to serve both. And Paris in the spring is “magnifique”. The following are impressions of some of the sessions I attended.

The Strategies for Commercialization track 1 “From concept to clinical entry: the innovative core”, chaired by Timothy Allsopp (UK) was outstanding. The session was highly informative with clear take home messages. It began with an inspiring talk by Gwendolyn Binder-Scholl (US) on Translational Development of Affinity Enhanced T Cell Receptor Cell Therapy. She clearly presented the technology development and its evolution into clinical trials leaving a message that new cell therapies can become a reality. Frank Barry (IE) gave an excellent overview Mesenchymal Stem Cell Therapy in general and discussed translational Strategies as well as potential obstacles. Edward Geissler (DE) discussed Hematopoietic Cell Products as ATMPs from a global regulatory angle. This talk as well was very informative giving a broader picture of the field.

At the Immunotherapy and Dendritic Cells oral abstract session Anastasia Papadopoulou (GR) presented a very novel cell therapy technology with high potential for fighting viral infection, which would indeed enhance the wellness of the patient and save high medical expenses. Her talk described safety and clinical efficacy of virus-specific T cells with activity against ADV, EBV, CMV, HHV6 and BK virus administered after allogeneic hematopoietic stem cell transplant. Alla Dolnikov (AU) presented the identification of factors modulating the efficacy of CAR-T cell therapy. Both presentations were cutting edge. Another oral presentation during the following Quality and Operations session was by Rosemarie Bell (AU). She very interestingly discussed the idea of global GMP – a comparability study to link good manufacturing practice standards for worldwide compliance within the cellular therapy industry, showing some of the differences one has overcome when dealing with regulatory bodies in different locations around the globe and how to overcome them by using the best practices.

The second plenary session “Cellular Therapy in Neurological Disorders” was co-chaired by Josef Priller (DE) and Massimo Dominici (IT). In this session Roger Barker (UK) and Stefan Irion (US) introduced some very new therapies for Parkinson’s currently undergoing trials.

Workshop 3, a joint session with EBMT “Cord blood: then and now” chaired by Christian Chabannon (FR) had three excellent speakers. Eliane Gluckman’s (FR) experience and deep knowledge of the field were on display as she presented a very wide overview of Cord Blood Transplantation Present and Future. Elizabeth J. Shpall (US) showed The Future of Cord Blood Cellular Therapy as a very attractive alternative for stem cells, while Mary Horowitz (US) discussed the current status and the rising need for CBT.
Nicole Frisch  
Presenter and Networking Facilitator  
Laboratory Technologist  
Technical University  
Munich, Germany

**General:** the meeting location was chosen very well, in the middle of the city and good to reach by public transportation. The catering was good and the program next to the meeting enjoyable. There has been plenty of time to meet other MLTs. The organisation and information before and during the meeting and the presentation of the program (in the booklets) have been perfect! I could find every room and all the information I needed. Thanks for that!

**Meeting contents:** The congress itself was fantastic! A good mixture of technical sessions, operations sessions, plenary sessions, corporate tutorials and oral abstract presentations. Some of the oral abstract presentations gave me lots of good advice for our projects, but one of them made me think about the ethical responsibility for all of us who want to make something special for our patients and help them, without violating the ethical boarders of such therapies.  

The operation track gave me good advice, and the workshops were very good as well but I would like to have a little bit more practical aspects covered in the workshops, including examples. The exhibitions of the different companies were very important and good for our laboratory – I got a lot of valuable information over there.  

I barely looked at all the posters but a lot of other participants did. I spoke with so many different people during the meeting, and all of them were very pleased with the conference.
LAST HINT: If the BEACON\textsuperscript{SM} platform is to grow there will have to be more advertising for that. The idea of BEACON\textsuperscript{SM} is fantastic, and during the presentations and talks everybody was calling for a platform like BEACON\textsuperscript{SM}!

Timothy Allsopp, PhD  
Strategies for Commercialization Track Planning Committee  
Member, ISCT Commercialization Committee  
Head of External Research (Neusentis Regenerative Medicine)  
Pfizer Regenerative Medicine  
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From my perspective as a Commercialization Track session chair I was extremely pleased to see so much support and engagement by the participants in many sessions, at such an inhospitable time of day as 07:30 in the morning. I heard several comments made by participants that they really enjoyed the meeting content and quality of presentations and discussion.

I think the Industry networking event hosted by the British Embassy was a real hit. In the serene and historical surroundings of the building itself there seemed to be a great deal of productive interaction and discourse. The organizers and hosts of this feature should be thanked once again.
Another excellent conference. Always a double-edged sword when there are so many good sessions, but you can only be in one place at a time. The rise in attendance is representative of the increased impact of ISCT, and is certainly recognized for potential sponsorship impact. Some specifics for feedback:

- I would be curious what the relative attendance was at the 7:30AM sessions. Understanding that we have many good topics to fit in, I wonder if we see enough attendance at the morning sessions to make them worthwhile. It seemed the hotel breakfast area was filled with mostly ISCT folks until the 9AM Plenary sessions.
- Interesting opening welcome with the dancers. Can’t wait to see how you top that in Las Vegas! 😊
- Plenary Session 3 “Cellular Therapies in Solid Organ Transplantation and Tissue Engineering: Towards Potency Testing of MSCs” – good to see a topic that is relatively new to a lot of the folks. If we cover the topic again, might be good to get folks from University of Louisville/Regenerex to speak. Novartis has jumped on board to commercialize their IP.
- Plenary Session 4 “State of the Industry: Past, Present and Future Development” was outstanding. We should have more “review” type presentations to provide “Big Picture” perspectives. A shame that Geoff MacKay was not able to give his presentation.
- Overall, the conference was very nicely done.

Deborah Griffin
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The session entitled “Legal and Regulatory Challenges for Cell Therapies in Europe” was one of the most entertaining sessions that I attended during the Annual Meeting. The Chair, James Lawford Davies, designed the session to promote a lively debate by posing three questions

1. Is the EU regulatory framework ‘fit for purpose’?
2. Should Hospital Use Exemption be abolished?
3. Are auto CT within the same surgical procedure ATMPs or grafts?

Panelists James Lawford Davies (UK), Alexander Denoon (UK), and Erik Vollebregt (NL) then attempted to provoke each other and us, the audience, by playing Devil’s Advocate. Discussions regarding semantics (the use of the US FDA’s word “homologous” shows up in EU documents when the accepted equivalent is “same essential function”) and the “Kafkaesque decision-making process” elicited laughs and groans alike. The best slide of the presentation was a diagram of clinical trial development (basic research to approved product on the X axis) with time (on the y axis) indicating when a regulation had been enacted. It demonstrated that regulations had been released in a piecemeal fashion, and not in a logical order, drawing the
conclusion that the EU regulatory framework had been shoehorned into the existing structure rather than being conceived as a whole. Another area of discussion that resulted in a significant amount of audience participation was the ‘Margin of appreciation’, where matters of ethical import are not legislated in a uniform manner. For example, member states are entitled to form their own position with regards to a fertilized egg. The question “How many people is a small unmet need?” generated a debate regarding the need for a clinical trial if a site has more than a threshold number of patients, a threshold which seemed to vary from country to country. We all left the session with more questions than answers, and with a greater appreciation for the complexity of the regulations among the member states of the EU.

Danielle M. Nicholson  
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REDDSTAR Coordinator, Professor of Medicine Tim O’Brien NUI Galway, and Orbsen Therapeutics’ Head of Research, Dr. Steve Elliman took part in an interactive workshop during the ISCT 20th Anniversary meeting held in France at Le Palais des Congrès de Paris. The workshop showcased “EU-Funded Projects on Cellular Therapies” and took place on Friday, 24 April 2014 from 15:30-17:00.

Steve Elliman added, “The 20th ISCT Meeting in Paris featured some outstanding updates in the translational development of cell therapies. I personally enjoyed the Plenary Session of the development of cell therapies for leukaemias and inherited immunodeficiencies, which included an inspirational discussion of the challenges and successes of gene-modified cell therapies by Prof. Adrian Thrasher from Great Ormond Street Hospital in the London and Prof. Bruce Levine from University of Pennsylvania. In addition, there was a well-attended and detailed discussion of the development of clinical MSCs for Acute Respiratory Distress Syndrome (ARDS), which was very informative for groups entering the clinical phase of cell therapy testing.”

In response to the EU-funded projects’ workshop and REDDSTAR’s involvement, Massimo Dominici, MD, President of the ISCT 2014-16 remarked, “The presence of highly valuable speakers representing EU funded research projects represented true added value within our 20th Anniversary Meeting. The feeling I have is that cell therapy in Europe has grown incredibly and, certainly, the EU FP7 granting has provided the proper boost in translating basic concepts into clinical realities for still as yet untreatable diseases. As a global society, ISCT looks forward to showcasing again these EU-based achievements in our future events worldwide.”

The REDDSTAR-sponsored session (Workshop 5) was chaired by Dr. Mark Lowdell of the Royal Free and University College Medical School, University College London, UK and Dr. David Gancberg from Directorate Health, Directorate-General for Research and Innovation, European Commission. In addition to Prof. O’Brien and Dr. Elliman, the workshop also featured Prof. Anne Dickinson, MD, of Newcastle University, UK, a project leader in Celleurope and Dr. Pierre Layrolle, Coordinator of Reborne based at INSERM in Toulouse.

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