

# News LETTER



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## Message from the President

Well, Summer (or Winter) is upon us once again. For those of us in the Northern Hemisphere it's a time to hopefully take some holidays, spend time with family, travel or just relax. As hard as we all work caring for our patients, let's not forget that it's just as important to take care of OURSELVES; and that includes taking a break and getting some well deserved rest. I am writing this just in advance of the Secretariat's next SKYPE conference. We continue to have tasks before us that will keep us active in the coming months. We are in the process of transitioning our home out of Germany and into Canada, based on the vote/referendum held with our election earlier this year. We are working with our legal team here around the transition; and are waiting to hear from the Courts in Germany on a process and timeline for our exit. Clearly as part of the 'move' we will have to amend/reword parts of our Constitution. There will be NO substantive/procedural changes to the Constitution and as such, the proposed amendments will still be posted in advance for the required consultative period prior to the vote on the amendments. We are planning on holding this vote in the Fall (Spring), and we will aim to have us moved by the end of this year or in early 2014. The planning of the next Symposium in Montreal is proceeding in earnest, and the program is shaping up to be rich and diverse in topics of interest to every level of Oncology Pharmacy Practitioner. Mark your Calendars (April 2-5, 2014) and start making plans



to attend now. The call for Abstracts for the Montreal meeting will come in the Fall, as will our next call for submissions for ISOPP Research Grants. Plan to share the good work you are doing in your country by submitting an abstract for the meeting in Montreal. On a more concerning note; we have not had a good (OK any!) response to the RFP for our next Symposium to be held in 2016. According to our Geographical rotation, the next Symposium should be held in Europe, but I remind everyone that all submissions, regardless of location, are adjudicated equally. Even if you only have a small cadre of Oncology Pharmacists in your country; our Management Company has Conference organizing expertise and can work with your local team to organize the event. Please submit your proposal(s) ASAP. Our first round of ISOPP Meet N Greet events held in late 2012 and through early 2013 was met with mixed responses. At the present time, our plan is to continue to have these

events at Oncology Pharmacy and Oncology Specialty meetings (e.g. ASH) from September 2013 through to the ISOPP Symposium in Montreal where the Secretariat will re-assess the value of these events. If you are planning a national or regional Oncology Pharmacy meeting that ISOPP members would normally attend, please let me know (john.wiernikowski@gmail.com) and we will work with you to schedule an ISOPP Meet N Greet as part of the meeting.

Regards,

John Wiernikowski, BScPhm, PharmD,  
FISOPP  
President, ISOPP

As always, if you have questions/comments to/for me or the Secretariat; please contact me at john.wiernikowski@gmail.com or via Fax +1-905-521-5008 or Phone +1-905-521-5030 page 1096

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## 2013 Election Results

Thank you to all of the ISOPP members who voted in this year's election, and special thanks to all of the members who stepped forward and submitted nominations for this year's positions on the Secretariat.

The result of this year's vote is as follows:

**Secretary:** Steve Stricker

**General Secretariat Members:** Shaun O'Connor and Felicity Wright

**Vote on Constitutional Move:** 87% in favour of moving ISOPP's Constitution from Germany to Canada.

Rowena Schwartz, PharmD, BCOP  
ISOPP President-Elect  
Chair Nominations Committee

The voting was very close for the positions, which speaks to the quality of the candidates and to our Nominations process. Thanks go out to the Nominations Committee for their work in reviewing Nominations and assembling the slate of Candidates.

Congratulations to the winners. To those not elected (this year!), and to all ISOPP members, this is a reminder that you can participate in the activities of ISOPP through one of ISOPP's Committees, which includes Research, Standards, Education and Membership/Finance.

John Wiernikowski, PharmD, FISOPP  
ISOPP President

## Introducing Shaun O'Connor ISOPP Secretariat Member

I am very excited and honoured to have been elected Secretariat member for ISOPP. I see this as a great opportunity to serve the membership of ISOPP and look forward to the rewards and challenges that this will provide.

I studied Pharmacy at Monash University in Melbourne, Australia and graduated in 2005. After my intern year at St. Vincent's Public Hospital in Melbourne, I was selected to continue my career at St Vincent's. After a year of general practice, I began to specialize in Haematology and Oncology pharmacy while working on the specialist inpatient unit. I have since also had extended rotations in our Cancer Centre, the outpatient unit. My experience through ISOPP thus far has centered around ISOPP Symposia, both at the Australasian and International levels, initially as a delegate and moving thereon to the Organising Committee, with the upcoming Australasian Symposium in Melbourne very much at the forefront of my current ISOPP involvement.

I hope to meet many of you at the Symposia during my period of service,

as well as after, to network and provide

opportunities for members to liaise and work with others to enhance the practice of Oncology Pharmacy and improve the services the profession provides.

Outside of work and professional commitments, I enjoy playing competitive tennis, captaining multiple teams for my local tennis club, where I am also a committee member. I even enjoyed the opportunity to have a hit of tennis in Melbourne with Felice Musicco, chair of the Publications Committee, at the International Symposium in Melbourne in 2012! I also enjoy travelling and look forward to exploring Canada next year.

On a final note, I encourage you all to come to our upcoming Symposia, the Australasian Symposium in Melbourne this August 10-11th and the International Symposium in Montreal in May 2014. I look forward to seeing you there!



## Introducing Steve Stricker ISOPP Secretary

Thank you ISOPP for giving me the opportunity to serve as your secretary! I look forward to this term, hearing your interests and



concerns about the future of ISOPP and working with the secretariat to move this great organization forward! By way of introduction, I am an assistant professor of pharmacy practice at the Samford University McWhorter School of Pharmacy (MSOP) in Birmingham, Alabama, USA where I teach oncology pharmacotherapy and precept 4th year pharmacy students on hematology/oncology elective experiential rotations. MSOP has a strong history of international partnerships for the purposes of training and education and this rich tradition and encouragement for faculty members to participate in international endeavors led me originally to ISOPP as an extension of our school's goals of improving the quality of pharmacy practice around the globe. I am a passionate advocate of seeing oncology pharmacy, in particular, grow and flourish worldwide. When not working with ISOPP, I am an active member of several other professional organizations, I coach my three sons (Stephen, age 8, Trent and Thomas (twins), age 5) in little league baseball, enjoy travelling, reading, movies and a wide variety of music. I look forward to attending, with my wife Kristie, the Australasian ISOPP Symposium in August and having the opportunity to meet all of you who will join us in Melbourne! In closing, our MSOP's vision statement is, "Preparing Pharmacists Who Transform Lives." I think this is also a fitting challenge to ISOPP as an organization and look forward to working with each and every one of you in the years to come as we seek to improve the ways in which we serve cancer patients around the world.



# International Conference and Workshop on Safety Management of Central Cytotoxic Reconstitution in Pharmacy Practice

## 25 -27 May 2013, Yogyakarta, Indonesia

For the first time, the Faculty of Pharmacy of Ahmad Dahlan University and Bethesda Hospital of Yogyakarta, Indonesia hosted “The International Conference on Safety Management of Central Cytotoxic Reconstitution in Pharmacy Practice” on 25 May 2013 as a 1 day meeting in Yogyakarta, which was attended by 300 pharmacists, researchers, members of academia, policy makers and health care professionals from all over Indonesia. The theme of this conference was “Safe patient, environment and us”. There were 4 speakers for this conference; Prof Kaptein from Leiden University Medical Centre of The Netherlands, Harbans Dhillon from University Malaya Medical Centre, Malaysia, Endang Budiarti from Bethesda Hospital, Yogyakarta and Dr Dyah Perwithasari from Ahmad Dahlan University, Yogyakarta, covering two main topics of drug reconciliation and the pharmacist role in oncology management. A total of 22 oral papers and 13 posters were presented at this conference.

This was followed by a 2 day “Workshop on Basic Cytotoxic Handling” which was attended by 30 Indonesian pharmacists and was conducted by Harbans Dhillon and Woo Mei Mei from Malaysia, held in Bethesda Hospital, Yogyakarta. There were lectures and hands on sessions, in which participants learnt basic

skills in reconstitution and negative pressure techniques. The participants showed great enthusiasm and were quick learners.

Bethesda Hospital had constructed a compounding centre which consists of 2 isolators. Harbans Dhillon had the honour to officiate the opening ceremony for this centre. *See photo, right, of Harbans cutting the ribbon at the entrance to the Centre.*

This showed commitment by the hospital to provide a safe environment for the reconstitution of cytotoxic drugs. A copy of the ISOPP standards was also presented to the Pharmacy Department of Bethesda Hospital by Harbans Dhillon.

It was not all work as we visited the UNESCO world heritage sites of Prambanan and Borobudur temples. Borobudur is still used for pilgrimage as once a year Buddhists in Indonesia celebrate Vesak at the monument. Borobudur is Indonesia’s single most visited tourist attraction.

Harbans Dhillon  
Senior Pharmacist  
University Malaya Medical Centre





# Highlights from the HOPA 9th Annual Conference

The Hematology/Oncology Pharmacy Association (HOPA) held its 9th Annual Conference March 20th to 23rd in Los Angeles, California with over 750 attendees, including many ISOPP members from both within and outside USA. There was a wide array of topics covered in the educational sessions as well comprehensive BCOP review sessions. The plenary sessions led some controversial discussions including Reimbursement Challenges and Carboplatin Dosing.

While there is always great opportunities for networking at professional meetings, the poster sessions and special events held during the HOPA meeting helped facilitate networking opportunities for members, trainees, and over 43 exhibitors from Industry. At the HOPA meeting one of the ISOPP founding and very active member, Dr. Robert Ignoffo received the HOPA Award of Excellence for his lifetime of significant contributions to oncology pharmacy practice.

In our ISOPP networking breakfast session we discussed opportunities to help enhance and improve



relationships between ISOPP and HOPA. The HOPA incoming president, Lisa Holle and the incoming secretary, Daisy Yang are both active members of ISOPP so in our discussion we focused on opportunities this coming year to network between the two organizations. Perhaps even seeking joint efforts in updating pharmacy standards or even joint meeting in the future.

Hopefully we will have follow up discussions on Skype and at the ISOPP Bi-Annual Meeting in April 2014.

Judith A. Smith, Pharm.D.,  
BCOP,CPHQ, FCCP, FISOPP  
The University of Texas M.D.  
Anderson Cancer Center. USA

I am pleased to inform you that two articles published in JOPP were the recipients of the HOPA literature awards this year:

## **HOPA Oncology Pharmacy Practice Literature Award**

This award recognizes an author who has written an article, other than scientific research, that contributes significantly to the betterment of the hematology/oncology pharmacy profession and describes innovations in community, hospital, or healthcare system hematology/oncology pharmacy practices that are applicable beyond the practice site where they were developed and/or evaluated.

### **The oncology pharmacy in cancer care delivery in a resource-constrained setting in western Kenya**

*J Oncol Pharm Pract December 2012 18: 406-416*  
Matthew Strother, Kamakshi V Rao, Kelly M Gregory, Beatrice Jakait, Naftali Busakhala, Ellen Schellhase, Sonak Pastakia, Monika Krzyzanowska, and Patrick J Loehrer

## **HOPA Basic Science and Clinical Research Literature Award**

This award recognizes an author who has written an important scientific article describing hematology/oncology basic science and/or translational research or clinical trials evaluating drug efficacy and/or safety.

**An analysis of measured and estimated creatinine clearance rates in normal weight, overweight, and obese patients with gynecologic cancers** *J Oncol Pharm Pract September 2012 18: 323-332*

Wendelin K Nelson, Richard N Formica, Jr, Dennis L Cooper, Peter E Schwartz, and Thomas J Rutherford

The articles are nominated by HOPA members, selected by the Awards Committee, and then confirmed by the HOPA Board of Directors.

Congratulations to the authors.

Barry R Goldspeil, Editor-In-Chief JOPP

## Upcoming meetings

### Australasian ISOPP

Aikenhead Wing,  
St Vincent's Hospital, Melbourne

**10 – 11 August 2013**

For more information contact shaun.  
oconnor@svhm.org.au

This ISOPP Symposium is an opportunity to learn from medical and pharmacy experts and covers a broad range of cancer topics including: Individualised medicine, New Drugs, Interactive Workshops (including Medical Oncology, Haematology, Paediatrics and Management)

### NOPS

Hyatt Recency Vancouver

**14 – 17 November 2013**

For more information, please visit:  
<http://www.capho.org/nops-2013>  
'Many Paths, Many Journeys'

### BOPA

Edinburgh International Conference  
Centre (EICC)

**18 - 20 October 2013**

For more information, please visit:  
[www.bopawebsite.org](http://www.bopawebsite.org)

In support of the FCP/BOPAResearch Strategy the 2013 conference will have a greater focus on the practice-based research of its members. To achieve this six members will be chosen to present their work at an extended plenary session during the conference with the best overall oral poster presentation (voted for by all attendees) receiving a prize worth up to £2,000 to attend an international conference. Delegates are invited to present results of their clinical and technical work as a poster and/or an oral presentation.

## Virtual Journal Club (VJC)

The tenth and eleventh issues of the Virtual Journal Club (VJC) are available on the ISOPP website by clicking on the VJC logo. The journal articles are "Cetuximab infusion reactions: French pharmacovigilance database analysis" and "Clinically relevant cancer biomarkers and pharmacogenetic assays". Use these articles and the questions available on each to add to your continuing education requirements.

Regards

Felice Musicco

Publications Chair 2012-2014

[musicco@ifo.it](mailto:musicco@ifo.it)

Are you ready for the upcoming 'call for abstracts' for the Montreal ISOPP meeting? You've done the work, now get it published!

As mentioned in the March 2013 Newsletter, ISOPP sponsored a new publication on cancer in the developing world called "Cancer Control 2013". ISOPP's sponsorship is in conjunction with a number of other National and International Cancer organizations. Please visit Global Health Dynamics to read or download your own copy of this important 177 page publication.

### Have you some research planned? But need funding?

Apply for an ISOPP Research Grant – announcement to be made soon. Keep watching.

To make a submission to the ISOPP newsletter – contact the Editor – Jill Davis by email at [Jill.davis5@bigpond.com](mailto:Jill.davis5@bigpond.com)



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**ISOPP XIV** XIV INTERNATIONAL SYMPOSIUM ON  
ONCOLOGY PHARMACY PRACTICE  
**April 2-5, 2014 • Montréal • Canada**  
*Fairmont The Queen Elizabeth*  
[www.isoppXIV.org](http://www.isoppXIV.org)



# The BMT Tandem meeting

*Two years ago on the evening of the first day of the Tandem BMT meeting pharmacist conference a man walked up to me, stuck out his hand and said, "hey you're Felicity, I know you from ISOPP". This man was Steve Stricker and this was the start of a beautiful ISOPP friendship. To commemorate this friendship we thought it appropriate to review this year's tandem BMT meeting together for the ISOPP newsletter. A shared love of molecular biology and basic science, amateur in my case and supported by an undergraduate degree in Steve's, prompted us to tackle some of the pertinent education plenary and best abstracts and review the pharmacy breakout sessions. - Felicity*

Held annually in continental United States or Hawaii in the lucky year, the Tandem BMT meeting brings together members of the American Society of Blood and Marrow Transplantation (ASBMT) and The Center for International Blood and Marrow Transplant Research (CIBMTR). In 2013, over 2800 members descended on Salt Lake City, Utah and its surrounding ski fields for a five-day education and working meeting.

Classified as a boutique meeting, Tandem BMT is set apart from the large intergroup conferences by its devotion to disciplines somewhat underrepresented in other major meetings (stick your hands up pharmacists). Tandem BMT incorporates two days of education for stem cell transplant pharmacists into its five-day scientific program and for the first time a pre meeting stem cell transplant foundations course was held for early career practitioners.

Day one of the scientific forum extracted sore post ski run bodies from bed in sub zero Salt Lake temperatures to the first plenary, taking CARs to the clinic presented by Stanley Riddell, Michael Jensen and Carl June.

Chimeric Antigen Receptors or CARs

as they are affectionately known are type of modified T cells that are engineered to have forced expression of monoclonal antibodies on their surface. These monoclonals are joined by a linker to a specific tumour antigen and on reinfusion allows the tumor to be directly targeted by the patient's immune system resulting in cell death. Co-stimulatory process are maintained via linkage with CD28 or 4-1BB ligand however there is some lack of specificity for tumor cells resulting in toxicity to non-malignant cells.

Carl June from University of Pennsylvania reported on his experience in treating patients with a CAR that targets CD19. Published in the New England Journal of Medicine (NEJM) in 2012 he described treating 11 patients with CART19, 9 with CLL and 2 with refractory ALL. In the CLL patients 3 had a complete response with CAR +ve cells found in the blood and persistent CR at > 2 years. In the two ALL treated one paediatric patient remains in CR at 8 months in previous refractory disease. The other relapsed with CD19-ve disease. In a transplant meeting all are acutely aware of the desire to avoid transplant where possible and also to have an ability to offer further therapy for post transplant relapse in appropriate patients. This preliminary work shows the translations of CARs to clinical practice may offer this hope.

Chimeric Antigen Receptors have overcome earlier disappointing *in vivo* efficacy by improving on co-stimulatory molecules however the definitive molecular architecture particularly in relation to spacer domain structure remains to be defined. In addition identifying the relationship between structure and toxicity inducing domains and defining the role of CARs in stem cell transplant remain on the agenda in the transplant discipline.

In addition to the focus on novel therapies that might spare patients

transplant related toxicity is the focus on non-myeloablative or reduced intensity preparative regimens. A corner stone to this type of regimen is the inclusion of alemtuzumab replacing anti thymocyte immunoglobulin for *in vivo* T-cell depletion. The use of this CD52 monoclonal antibody in the reduced intensity (RIC) preparative regimen has offered up some questions to stem cell transplant physicians and pharmacists alike, particularly, what effect does the dosing schedule have on T-cell depletion and resulting chimerism, how you dose a drug with unknown metabolism, unknown excretion pathways and a half-life of 12 days? These questions arise as much of the pharmacokinetic and pharmacodynamics behaviour of the drug is undetermined and has resulted in varied administration schedules and dosing strategies for *in vivo* T cell depletion in the RIC arena. Rebecca Marsh from Cincinnati Children's Hospital presented the results from 187 RIC transplants and the relationship of Alemtuzumab dosing schedule and resultant post transplant chimerism in pediatric transplant patients transplanted between 2004-2012.

72 patients received "distal" Alemtuzumab commencing at day -23 to -21 and were given alemtuzumab in a dose escalating fashion. 60 patients received "proximal" alemtuzumab commencing flat or mg/kg dosing commencing on days -12 to -8. The remaining 41 patients received "intermediate" alemtuzumab and 14 patients were excluded from analysis. The results showed the proximal group had a cumulative incidence of mixed chimerism of 75% compared to the distal and intermediate groups 39% and 32% respectively. These results have in part answered the scheduling question for alemtuzumab however further trials are required to determine if this is applicable across all preparative regimens containing alemtuzumab.

The BMT Pharmacist's Conference, an annual part of the Tandem meeting, offers oncology/BMT pharmacists the opportunity to gain knowledge and

experience from peers practicing in this rapidly evolving area of medicine while earning continuing education credit. This year's meeting featured a number of thought provoking presentations aimed at improving the care of hematopoietic stem cell transplant (HSCT) patients. Below is a brief review of some of these topics.

Ashley Teusink, PharmD, of Cincinnati Children's Hospital Medical Center received the Best Pharmacy Abstract award for her research entitled, "Impact of Pharmacogenetics and Therapeutic Drug Monitoring on Optimizing Voriconazole Dosing in Pediatric Patients Undergoing Hematopoietic Cell Transplantation." This study sought to identify the importance of CYP2C19 polymorphisms and their impact on voriconazole dosing by correlating the patient's genotype with serum drug concentrations. Previous studies have identified that low trough concentrations of voriconazole have been associated with treatment failure while high plasma concentrations have been linked to hepatic abnormalities, visual disturbances and neurological side effects. Results of this study in 25 patients revealed that CYP2C19 heterozygotes required higher voriconazole doses to achieve therapeutic plasma concentrations (median dose: 16.3 mg/kg/day) whereas patients with a variant genotype required the lowest doses (median dose: 10.6 mg/kg/day). Dr. Teusink thus concluded that traditional voriconazole dosing utilizing a standard starting dose may be insufficient for all patients. As such, CYP2C19 genotyping and therapeutic drug monitoring should be utilized to select initial voriconazole dosing.

Michael Boeckh, MD, from the Fred Hutchinson Cancer Research Center in Seattle, WA shared thoughts regarding the management of resistant CMV infections. He emphasized that while CMV resistance is uncommon, it may be associated with serious risk of morbidity and mortality. As such, genotypic resistance assays should be the test of choice for high-risk

patients with clinical and/or virologic failure. Dr. Boeckh reviewed UL97 and UL54 mutations known to result in ganciclovir resistance with the latter also believed to confer cross-resistance to cidofovir and/or foscarnet as well. Unfortunately, interpretation of mutation testing is considered uncertain with potential harm to the patient in the form of false resistance or false susceptibility for antiviral agents. Thus, it is important that laboratory results be correlated with clinical observation in selecting best choice of therapy for this patient population. In the salvage therapy setting, Dr. Boeckh encouraged consideration of: switching to an alternative drug, addition of an alternative drug to the patient's current treatment regimen, increase ganciclovir dosing (with or without G-CSF support), reduction or modification of immunosuppression, or use of immunoglobulin therapy. While still in clinical trials, novel antivirals including maribavir, letermovir, and CMX-001 may play a role for these patients in the future. At this time however, recommendations for management of patients with resistant CMV infection are limited to expert opinion levels of evidence as few treatment options exist.

Christine Walko, PharmD, (University of North Carolina School of Pharmacy) and Kelly Valla, PharmD (Emory Healthcare) led attendees through a debate of the role of pharmacokinetics in busulfan drug dosing. Data was presented to indicate that variability of busulfan pharmacokinetics may be related to circadian rhythms, variable hepatic metabolism, age, obesity, etc. This leads to the recommendation that due to high interpatient variability, pharmacokinetic dosing should be utilized in standard practice. Additionally, the relatively narrow therapeutic index between disease relapse and drug toxicity argues for the role of pharmacokinetic monitoring in patients undergoing busulfan conditioning regimens prior to HSCT. Dr. Valla acknowledged in her remarks on the 'con' side of the debate that

there is little supporting evidence to suggest not utilizing pharmacokinetic monitoring suggesting that the biggest barriers are expensive equipment, an intense labour component and lack of data for area under the curve targets outside of use of busulfan in combination with cyclophosphamide. Ultimately, most HSCT centers have accepted busulfan pharmacokinetic modeling as a standard of care to improve patient outcomes.

The combination of basic and clinical sciences (and focused education for transplant pharmacists!) related to advances in stem cell transplant and many opportunities for fellowship make ASBMT Tandem an excellent conference for attendees. The 2014 meeting will be held at the Gaylord Texan Convention Center in Grapevine, Texas February 26 – March 2, 2014. Transplant pharmacists or pharmacists with an interest in stem cell transplant are encouraged to attend and submit research abstracts. We'd love to see more ISOPP members in Texas in 2014!

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