[TITLE] **Venture “down under” and view pharmaceutical sciences in widescreen**

[STANDFIRST] The International Pharmaceutical Federation explains why Melbourne 2014 is an event that should not be missed

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Dementia is fast becoming a hot topic, following a call from the World Health Organization last year for the disease to become a public health priority. Alzheimer’s Disease International estimates that, by 2030, over 65 million people - more than the population of France and three times that of Australia - will suffer from this condition. All countries, high and low income, will be affected and all over the world pharmacists are beginning to prepare for this time bomb, learning to spot early symptoms and training as champions. But pharmaceutical scientists also have a huge part to play. Next year, for example, the programme of the fifth Pharmaceutical Sciences World Congress (PSWC) includes a session on treatment strategies in Alzheimer’s disease, as well as a more in-depth look at whether or not blood-brainbarrier drug transport is increased in Alzheimer’s patients.

The theme of the congress, to be held in Melbourne, Australia, from 13 to 16 April, is “Pharmaceutical sciences beyond 2020 - the rise of a new era in health care”. Hosted by the International Pharmaceutical Federation (FIP), it promises to bring together experts from the global scientific community in order to share innovative research and to optimize the discovery, development and use of medicines. “FIP went through a process of establishing what pharmaceutical sciences might look like in 2020 and we’re aiming now to articulate the pathway. The theme is really an extension of that; it’s about how we’re applying those advances in pharmaceutical science to the direct issue of improving healthcare,” explains Professor Ross McKinnon, congress chair and a distinguished academic at several Australian institutions, including Monash University.

**Widescreen vision**

Professor McKinnon believes that although specialised conferences are useful, there is also a need for conferences - such as PSWC - that provide insight into a broader range of topics, because it is where those topics overlap that a lot of the major advancements are made. “We really have to look beyond our specific discipline, look more broadly at everything that is required. . . . I believe a programme such as we have in Melbourne, where we’re looking at issues from multiple directions, provides an incredibly valuable way for people to get a broad understanding of where the pharmaceutical sector sits,” he says.

According to programme co-chair Associate Professor Giovanni Pauletti, who is director of the MS/PhD programme in pharmaceutical sciences at the James L. Winkle College of Pharmacy in Ohio, one of the main advantages of the PSWC is that it is a place where scientists connect with practitioners. “From those interactions, we learn about the challenges facing practitioners in implementing therapeutic management plans. With this important knowledge, we go back to our respective fields to figure out innovative scientific approaches that may help to overcome those limitations. It’s a two­way street, and I’m very positive that over the next couple of years we’re going to make a lot more progress in developing more effective therapeutic approaches for various diseases as a consequence of this close collaboration. . . . This way we can move disease management to a higher level,” he says.

**From immunogenicity to tight junctions**

The programming has been driven “from the ground up”, says Professor McKinnon. So, if you are ardent about immunogenicity, or even if transporters, enzymes and tight junctions are more your thing, there will be something for you. Attention is also paid to the bigger picture, with debates on attracting consortia for open access research on medicines and whether or not public-private partnerships might answer the growing need for research into new medicines. The programme committee took advice from various sections and has tried to create an overall programme that fits with what we see as innovative themes, he adds. There is a variety of ways to get up-to-date on subjects ranging from biomarker technology to green issues, including plenary sessions, keynote addresses, roundtables and workshops. Moreover, participants will be given access to two parallel conferences being held by the Australasian Pharmaceutical Science Association and Drug Delivery Australia, and which will offer topics such as “Intracellular drug trafficking and targeting” and “Self-assembled drug delivery systems”.

There will also be several sessions dealing with the design of novel nanocarriers. “There’s a big area with novel nanomaterials that are developed for drug delivery applications. . . and then there are also the sessions on the important question about the safety of these nanocarriers for clinical application,” says Dr Pauletti.

The list of confirmed speakers is impressive, and includes leading international researcher in micellar drug delivery systems Kazunori Kataoka (also current president of the Controlled Release Society); Yuichi Sugiyama, who is prominent for his role in characterising the impact of transporters and enzymes in drug disposition; acclaimed expert on gerontology and geriatric medicine William Banks; and Les Benet, an eminent authority on pharmacokinetics, pharmacodynamics, biopharmaceutics and drug delivery. Participants will also get to hear about “big challenges” from Peter Doherty, who was awarded a Nobel prize for his work in the field of T-cells and major histocompability complex.

**Gain local knowledge**

Those who have attended the PSWC in the past will see that there is a fresh element this time round, in the form of local showcases. “We have unique showcases from key Asian countries: we have ones from India, China, Singapore and Australia,” Professor McKinnon says. This meeting, more than any other, will allow participants to see what is occurring in the Asian region. They will be able to find out about the advances in an area of the world that is developing very quickly, but which is frequently under­represented at international meetings, he adds.

“This is a real opportunity for some of the countries of established pharmaceutical strength to engage directly with not just senior Asian pharmaceutical science individuals, but also with talented young Asian scientists. We anticipate a large number of younger scientists from Asia and I believe it’s really important to see a world­wide interaction with them, in order to identify the talent pool that is there. I believe the possibility to engage with such a dynamic sector is perhaps the most attractive thing about this meeting,” he explains.

**Get ahead**

In fact, the congress boasts plenty of opportunities for all students and young scientists. There will be informal “Meet the experts” sunrise sessions and a career development section in the congress exhibition, as well as an education day for PhD students. “We will provide young scientists with the opportunity to present their own work and receive feedback and guidance from world­renowned experts, which we hope will foster personal development and important contacts with scientists from all over the world,” says Dr Pauletti. And since a number of human resources managers from the industry are expected to attend, advice is to come armed with your CV!

**Make a date**

With so much on offer, exhaustion might seem a potential adverse effect of attending Melbourne in 2014. But there will be room for relaxation and fun, too, be it at the congress dinner, swimming with seahorses or a spot of golf on one of the city’s 15 championship courses. Mingle, make connections and form rewarding friendships while enjoying Australia.

The opportunity to attend the PSWC only comes once every three years. It is co-sponsored by a number of organisations that lead in pharmaceutical sciences, such as the American Association of Pharmaceutical Scientists, the European Federation for Pharmaceutical Sciences and the Pharmaceutical Society of Japan. The last congress, held in New Orleans in 2010, was attended by over 9,000 scientists and practitioners. Add this unique event to your calendar today and look forward to being involved in the key discussions that will spark a new era in healthcare.

For more information, visit [www.fip.org/pswc2014](http://www.fip.org/pswc2014)