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AN AUSPICIOUS OPENING

The President of India joins WHO officials at Opening Ceremony

FOSTERING LEADERSHIP

The Congress as a forum for growth

THE MAGIC OF NETWORKING

The heart of FIP

71st FIP World Congress in Hyderabad, India

A richness of vision, knowledge and culture



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International Pharmacy Journal

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When I was asked to write for the International Pharmaceutical Journal (IPJ) to cover the FIP's World Congress in India, I was shocked. While I knew most of the FIP staff from an internship I completed with them in 2009, I wasn't expecting to be trusted with such an honourable task.

I was eager to come to the conference for many reasons, including compiling the content for this special edition of the IPJ. But having never attended a FIP Congress before, I was honestly unprepared for the true scale of global representation in both participants and speakers and what a solid foundation for networking the FIP Congress truly is.

After attending the first few sessions and gathering participant opinions, I was pleasantly surprised by the session turnout and the topics being presented under the main theme of "Compromising Quality and Safety, a Risky Path". The information brought forth at the FIP Congress set the stage in theory for all in attendance to create higher quality, safer environments in their practice settings, encouraging and motivating participants to take these messages a step forward via practical applications. As Frank Debouck from Air France said, "Business is business, but safety is safety and everything is shared". So too

must be our willingness as a profession to advance patient safety on a global scale and share our knowledge base. If the FIP congress fosters one key idea above any others, it is this sharing of our collective global knowledge and vision for pharmacy.

This Congress edition of the IPJ covers only a fraction of the topics and sessions offered at this year's event in Hyderabad, but the hope is that it gives you a taste of the richness that is to be found at this very unique event - a richness that radiated throughout the host country of India. Yes, the Congress is about new and evolving information - in this instance on safety and quality - and yes it is about the global leaders within healthcare convening in one venue, cooperatively dedicated to inducing positive change. But it is also about fostering future generations of visionaries, and connecting scattered, individual sparks of motivation into one bright network. I hope this is evident in the pages to follow

It has been my privilege to report on the FIP Congress in Hyderabad. I look forward to seeing all readers next year at the most important event in FIP's history – the FIP Centennial Congress in Amsterdam – where the knowledge will only grow richer and the connections stronger.

Advit Shah *Editor* Myriah Lesko *Co-Editor*

Biography Advit Shah

A graduate from the University of Manitoba (UofM), Faculty of Science, majoring in microbiology in 2001, and then from the Faculty of Pharmacy in 2010, Advit is attending his first FIP World Congress. Acting as a special reporter for the International Pharmaceutical Journal (IPJ), this is Advit's second time being published in the journal.

His first publication with the IPJ came in 2009 after a six-week internship at the FIP headquarters in Den Haag, The Netherlands. That paper, entitled, "Pharmacy Intervention in the Medication-use Process - the role of pharmacists in improving patient safety", seems very fitting for the theme of this year's conference held in Hyderabad, India.

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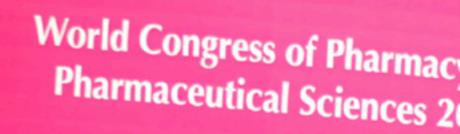
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HYDERABAD

COMPROMISING SAFETY AND A RISKY PATH!

71st International Congress of F

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FIR President Dr Michel Buchmann

INTERNATIONAL PHARMACY JOURNAL

AN AUSPICIOUS OPENING DAY

Advit Shah

Anticipation was hardly the word to describe the buzz around the Novotel Convention Centre, and perhaps exhilaration, is over suited for the event. Whatever the adjective, there was a sense of excitement from what was to come... more likely, from who was to come...

Nigerian pharmacist and National Treasurer of the Pharmaceutical Society of Nigeria, Olufemi Adebayo, was making his third appearance at the World Congress of Pharmacy and Pharmaceutical Sciences (he also attended in Istanbul 2009 and Lisbon 2010). When asked what draws him back to the conference, year after year, he simply stated, "to update my knowledge". He qualified his answer with the fact that he attends two other pharmaceutical conferences in Nigeria, however, he comes to the FIP World Congress to see what is happening on an international scale, to see what else is "going on", and to find out what new research may benefit his practice back home.

Adebayo has been practicing since 1986 as a pharmacist in his hometown in Nigeria. Four years later, he became an owner. Over the past 20 years, he said the practice of pharmacy has changed significantly with new medicines and greater responsibility of the pharmacist. Over the past three years, since attending his first FIP Congress, his practice has changed dramatically. He saw the importance and evidence for implementing clinical pharmacy into his practice, which he states is greatly lacking in the education of pharmacists in the country. He is happy to report that after seeking out a few courses on clinical pharmacy back home, that his practice is now reaping the benefits of improved clinical outcomes.

A neighbor of Adebayo, geographically speaking, Felix Mukuka Mutoloka from Zambia, is attending his first FIP World Congress. Born and raised in the African country, he is one of only fifty pharmacy shop owners that services over 13 million people, adding that of the 200-400 pharmacists in Zambia, most are located in an urban hospital setting. When asked about the disparity between the number of pharmacists and the local population, he states that up until the

year 2000, there was a lack of local training for pharmacists in the country. One had to relocate to be educated, and then move back. In 2000 a new school of pharmacy opened and forty new pharmacists are graduated each year in Zambia. His reasons for attending the World Congress are much the same as Adebayo, to be part of the world of community pharmacists, to expand his knowledge base, and to see where (meaning, India) more than 95% of the drugs he dispenses in Zambia come from. Mutoloka is keen on learning about parallel importations between Africa and Europe and to find out what organizations are interested in working locally and on a global scale to further reduce the inaccessibility to medicines in his country due to location (urban versus rural pharmacists) and from costs where a majority of Zambians receive their medications from government run hospitals. He was looking forward to experiencing more of the Congress and exciting to explore more of Hyderabad.

Not to be outdone by the whom of the event, the what of the opening ceremonies was just as important. On September 4th, 2011, during the opening ceremony, a momentous initiative that focuses on the role and use of pharmacists as frontline healthcare workers to help recognize and control the current tuberculosis (TB) epidemic was signed by Dr Hiroki Nakatani, the World Health Organization (WHO) Assistant-Director General for HIV/AIDS, Tuberculosis, Malaria and Neglected Tropical Diseases, and by Dr Michel Buchmann, the President of FIP. The joint statement entitled, Engaging Pharmacists in TB Care and Control, calls on pharmacy organizations around the world to engage pharmacists to fight against the TB epidemic by educating the public on TB, referring to those with TB symptoms to be diagnosed and treated, to promote adherence and help prevent multi-drug resistance, to dispense legitimate medicines in fixed-dose combinations as recommended by the WHO, to only dispense anti-TB



President of India receives gift at FIP Opening Ceremony

medications with a prescription (and not OTC), and to help strengthen and support TB management practices.

In 2009, 1.7 million people died from TB (roughly 4700 per day), a contagious airborne disease mostly affecting young adults in the developing world. India accounts for nearly one-fifth the global epidemic and is home to the largest number of cases. TB is very much curable with over six million lives being saved since 1995. However, medicine diversion, counterfeits, costs, and a lack of drug adherence/compliance (perhaps drug education) have lead to multidrug resistance and extensive drug-resistance. In 2008, nearly a half-million TB cases were reported to be multi-drug resistant leading to 150,000 deaths.

The importance of signing this initiative in India, according to Dr Nakatani, is because of India's emergence as a global leader in the pharmaceutical industry, India as home to the largest number of TB cases and India's significant contribution to the quality of affordable, generic medicines. At a press conference after the opening ceremony, Nakatani further added the accessibility of pharmacists and their extensive knowledge base would create an environment of care, adherence, to prevent multi-drug resistance, and to help ease the burden on struggling healthcare systems where physicians are unable to keep up with the demand in TB care. Noted by many on the press conference panel was the ample evidence to decrease healthcare costs by allowing interdisciplinary collaboration, a venture that should be fostered by public and private organizations.

The who of the opening ceremonies then took stage. None other than India's President, Smt. Pratibha Devisingh Patil inaugurated the first ever FIP World Congress to be held in India. Welcoming the world to India, Her Excellency congratulated the FIP on this year's theme of Compromising Safety and Quality, a Risky Path! noting India's contribution in deterring counterfeit medicines and improving medica-

tion quality. With a large skilled workforce, competitive cost advantage, and unmatched technical skill, India is becoming a growing force of innovation and advancement in the pharmaceutical industry.

"By 2015, it (India) is expected to become a U.S. \$20 billion industry, from its present turnover of U.S. \$12 billion" adding, "it is already the third largest in the world, by volume" the President stated. She was quick to add many other facts on India's pharmaceutical industry which may attract foreign investment and develop opportunities, including the 91,000+ pharmacy professional graduates per year that can meet the growing demands of the global market, "the largest number of U.S. FDA approved plants out of the U.S., and is expected to be among the world's top five innovative hubs with contributions of around 50% to drugs discovered worldwide." The President then added that social and financial responsibilities were also a part of healthcare and the pharmaceutical industry, that "the world population, mostly in developing countries has inadequate or no access to healthcare or essential medicines at affordable cost (sic)." She called on developed countries to share their knowledge and expertise in patient safety, drug quality, and education to help the developing countries prosper, noting that pharmacy is leading the way and "is an important component of the multidisciplinary Health Care Sector (sic)."

Echoing her statements, FIP President Dr. Michel Buchmann added "pharmacists must play their logistic role in public health to ensure quality access for all, of all safe and effective drugs available. And pharmacists must add the professional services necessary so that these drugs become medicines that actually save lives. In that way, pharmacists will no longer be considered solely as merchants but as indispensable health professionals." Dr Buchmann's speech further spoke on FIP's global initiatives on needs-based education, joint guidelines with the WHO on good pharmacy practice, strengthening member organizations, and this

year's theme on patient safety. To disseminate FIP's strategic plans externally on a global scale, Buchmann encouraged the audience to take a leadership role in their respective communities. "To overcome the challenges, (the) FIP needs each and every one of you. Your know-how, your energy, your engagement, your confidence and your conviction in achieving our collective Mission and Vision. To be able to continually change, renew and adapt our knowledge and competence to the real needs of society."

Sentiments were also shared by other dignitaries attending the opening ceremonies including, Governor of the State of Andhra Pradesh, Mr. Narasimhan, Minister for Medical and Health Affairs of the Government of Andhra Pradesh, Mr. R. Reddy, and Chief Minister of Andhra Pradesh, Mr. K. Reddy. Dr. Buchmann concluded his speech by reiterating the World Congress theme on compromising patient safety, stating that "as experts and professionals, we cannot go down a path that allows safety and quality to be compromised; we must travel the more challenging but honorable path that ensures the health of our societies are not placed at risk."

The rest of the program alternated between lively displays of India's culture by a group of Bharatnatyam dancers and an awards ceremony. FIP is pleased to congratulate the following recipients on their well-deserved awards and thanks them for their outstanding dedication to the development of pharmacy practice and science on a global level.

FIP Awards 2011:

FIP DISTINGUISHED PRACTICE AWARD
Dr Marianne F. Ivey (USA)

FIP LIFETIME ACHIEVEMENT IN PHARMACEUTICAL PRACTICE AWARD

Dr. Th. (Dick) Tromp (Netherlands)

FIP FELLOWS

Dr Max Brentano (Switzerland) Mr Mehmet Serif Boyaci (Turkey) Prof. Adel Sakr (Egypt) Dr Eduardo Savio (Uruguay)

HØST MADSEN MEDAL

Prof. Malcolm Rowland (UK)

FIP HONORARY MEMBERSHIP

Prof. Tsuneji Nagai (Japan)

As I packed up and started to head out, Mutoloka quickly found me at the end of the opening ceremony, and added that "for a country to get their president to attend this conference means that they are serious about pharmacy, the pharmaceutical industry, and where they want to go in the future." "This is huge", he states.

Maybe exhilaration was the best word to describe the buzz.







A REASON TO CHANGE

Advit Shah

Imagine yourself choosing your pharmacy based on its performance on safety or quality instead of convenience or price. Can't one have both safety and a good price? Everyday, thousands of passengers choose their airlines based on price. As a culture, we normally associate a "lesser quality" good to a lower value price. So are these passengers compromising their safety by flying cheaper? Dr Martin Schultz posed these questions when he chaired the opening session at the 71st FIP Congress in Hyderabad, A Primer of Ouality and Safety, which looked at how sub-standard medicines and services can have a negative impact on patients and place significant burdens on health care systems. So how does one achieve the best value, if value is consistently measured in relation to cost?

To make a case for change, Jamie Sinclair from Health East Care System, simply gave the consequences for not making any changes at all: drug resistance, lost productivity, increased healthcare costs, lack of trust (in medications, physicians and pharmacists), and even death. In order to improve quality, one has to know where to make the first step. Pharmacists should be able to recognise substandard medications, medicines that do not meet specific scientific criteria, counterfeit medications and medicines that are deliberately falsified, in order to take the appropriate steps in calling the right authorities and contacting the right patients if need be.

When 61% of pharmacists believe that counterfeit medicines are a problem in their country, making this distinction is clearly important not only for the safety of the patient, but in the initial step of preventing stock of reaching shelves. And there are many reasons for a pharmacist to carry counterfeit drugs including a lack of awareness, lack of regulations, financial gain, drug shortages, and drug costs. Jamie also pointed out other contributing factors that can lead to compromising quality. These include poor verbal and written communication, substandard education/training, environmental distractions, increasing drug complexity, technology,

leadership, and a lack of policies and procedures. Douglas Keene added that developing countries face the greatest barriers when it comes to improving safety and quality when there is a lack of properly accredited assessment methods, funding and training.

Frank Debouck from Air France Consulting offered some interesting insights on how the healthcare industry, in particular pharmacy (and the medicines supply chain that serves it), may benefit from a set standard of procedures that are shared throughout the airline industry. He urged constant feedback and sharing of incidences right through the pharmaceutical industry so that others can prevent the same mistakes from happening. "Business is business, but safety is safety and everything is shared," he stated, recognizing that there is competition amongst airlines and pharmacies, but that in the airline industry, one mistake could cost hundreds their lives, while in pharmacy, only one life may be affected. Therefore, the stakes are higher when flying because the public becomes weary after learning a single plane went down, even though 800,000 take off and land each day. Debouck also pointed out the notion of selfpreservation found in the airline industry. When a plane crashes, the crew gets injured as well, whereas in pharmacy, only the patient may suffer (not counting litigation that

may occur afterwards). He concluded his talk by urging for continuous training, greater teamwork, transparency, and that everyone should be concerned when it comes to safety and quality.

When it comes down to it, there shouldn't be a need for change, there should only be an environment of constant change. There will always be barriers to any challenge in life and pharmacy may benefit from a new "pay for performance" fee structure where insurance companies only pay out to those pharmacies or institutions that have proven records in patient safety and quality. Will this force a much-needed change when the survival of the pharmacy is placed in jeopardy when mistakes happen?

Dr Dennis Helling from Kaiser Permanente believes that this is the way pharmacy is going, at least in the United States. When talking at a later seminar on Pay for Performance, Helling looked at the cost of improving quality versus the cost of business as usual and concluded that investing in pharmacy is the least expensive of alternatives. Discussing how quality is quickly becoming the benchmark by American insurers to qualify payment, Dr. Helling commented on how assessing the quality report cards are leading to improved patient outcomes, more judicious pharmacy practice and –

Professor Martin Schulz at the opening session of the 2011 FIP Congress



from a business standpoint – an increase in revenue. When asked why he wanted to attend the FIP World Congress in Hyderabad, he stated that when he saw the title of the theme, he reacted passionately. "No! We must never compromise safety and quality" adding that he wanted to be a part of the conference to show how pharmacists are expanding their roles in offering quality and safety.

As for Ase Kielland of Norway, she was attending her first FIP World Congress and gravitated her way to the Pay for Performance lecture with Dr Helling because she was excited to learn about expanding pharmacy services and to hear concrete examples of how things are done. "Its what we are heading for in Norway," she states, "to provide extra services in community pharmacy and then be remunerated by the government". "This is my first time at a conference, and its inspiring me to participate more. I'm having fun in India, but there are some big contrasts between us (Norway) and them (India). At the same time, there we are working towards the same things."

A need for change is definitely warranted when it comes to improving patient safety. There is much that pharmacy can learn from the airline industry and from preexisting systems set up such as the pay for performance model described

by Dr. Helling at Kaiser Permanente. A willingness to share ideas that will help developing countries reach practice levels already found in developed countries will help create an environment that allows for transparency, thus fostering change without compromising competition. The will to change is what is lacking in this scenario. As Frank Debouck explained, while "regulations may come ten to fifteen years later, there is no timeline to implement steps for safety. If you think it will help, then do it!"

Dr H. Nakatani, WHO, Dr M. Buchmann, Mr A.J.M. Hoek





FLUSHING OUR FUTURE:

PHARMACEUTICALS IN OUR ENVIRONMENT.

Advit Shah

Who would have thought that the very life-saving medicines that millions of us consume on a daily basis are the exact same molecules destroying the environment, and ultimately, our own existence? We know that chemicals and pharmaceuticals enter our environment everyday from human activity, however we must distinguish the difference between the two. Dr Fred Massoomi, who lectures on proper hazardous drug management (as outlined by the Centers for Disease Control's National Institute of Occupational Safety and Health Alert) and on proper disposal of hazardous drug waste (as outlined by the Environmental Protection Agency's Resource and Conservation Act of 1976) states that while they share the similarities of being chemical in nature, pharmaceuticals do not represent what is found naturally; in other words, they have been engineered to have a pharmacological effect and to resist breaking down in the harshest of environments, the human body.

The ability to persist in extreme conditions also prevents the medicines' breakdown that can occur to naturally occurring chemicals. He adds, even with water treatment facilities, the ability to remove all pharmaceutical entities from our water supply is next to impossible as these drug molecules come in various forms ranging in lipo/hydro-philicity, ionicity, and if the drug exists as a parent molecule, a metabolite, or as a conjugate. In essence, pharmaceuticals exhibit characteristics that are not typical of most chemicals found in nature.

So how can we remove them if we don't fully understand how they exist in our environment? Dr Massoomi adds, "There are multiple technologies used by water treatment facilities to 'purify' our water supplies" ranging from sediment filtration to chlorine oxidation, and each varying in effectiveness and selectivity. "Of note", he adds, "these technologies are NOT consistently available globally (especially in the US) at current water treatment plants. Although all of these technologies exist, it would be very cost prohibitive to retro-fit existing facilities. In the US, it is estimated to cost \$20 trillion to modernize the facilities to address this problem. And with that we would not be guaranteed that it would be 100% effective."

The concept of pharmaceuticals as pollutants in our water supply is not new, with health authorities such as the World Health Organization (WHO) concluding that while pharmaceuticals are emerging as contaminants, the parts-per-billion or

even parts-per-trillion traces of pharmaceuticals in the water supply do not pose significant risk to human life. However, evidence is mounting on the impact to aquatic and terrestrial life: wild geese are becoming resistant to ampicillin, tetracycline, penicillin, and erythromycin; diclofenac has been proven to be toxic to vultures in decimating populations in the Indian subcontinent due to its ubiquitous use in cattle; fluoxetine and fluvoxamine induced spawning in bivalves at significantly lower concentrations; fluoxetine enhances the release of ovary-stimulating hormones in crayfish; and selective serotonin reuptake inhibitors elicit aggressive behavior in lobsters, causing subordinates to engage in fighting against the dominant member, and reducing the propensity to retreat.

But are these regulatory bodies missing key concepts when considering how these pharmaceuticals behave in our environment? Massoomi emphasizes a look on the following three terms: Persistence, the continuous presence in the environment; Bioaccumulation, an increase in the concentration of a chemical in a biological organism over time, compared to the chemical's concentration in the environment; and Ecotoxicity, a lethal concentration of chemical 96 hours after exposure. He adds that there is no defined minimum exposure to a pharmaceutical in our environment to assess whether or not they have a negative impact.

Taking a look at data complied in 2005 by the Canadian Pharmaceutical Industry, the country accounts for only 2% of the global market in pharmaceutical sales. The leading therapeutic classes in terms of purchases by pharmacies and hospitals in Canada ranked in order include cardiovascular drugs with 14% of the market, psychotherapeutics with 10%, cholesterol agents with 9%, anti-spasmodics with 8%, and cancer/immunomodulators with 7%. An increasing population has also lead to an increase in the number of medicines prescribed and distributed. Between 1998 and 2005, the number of pharmacies grew from more than 2,300 to 16,000. That is one pharmacy for every 1900 people! Dr. Massoomi adds, "the primary culprits for the residues in our water is human excretion of parent and metabolites of drugs, over prescribing by health care professionals, and discharge from pharmaceutical companies and agricultural use."

US studies on patient adherence and compliance estimate that 20% of prescriptions are never filled, half of all prescriptions fail to have the proper effect because of failure to take the drug or follow instructions, up to 50% of people with chronic ailments are non-compliant, and only one-third of all patients actually take their medications as directed. Where do these medications go then if they are not consumed? Now here is the so what, when it comes to pharmaceutical pollution: 54% of people throw medicines into the trash, 35% of people flush medicines down the toilet, and 95% of antibiotics are excreted unaltered into the environment. The misdirection of these unwanted medicines is due to a lack of education, states Massoomi, who challenged the audience of mostly pharmacists to think back to their days of schooling to recall which class or lecture told them about the proper

disposal of medicines. If the pharmacist doesn't have that answer, how would the consumer?

Common sense shouldn't be ruled out though. Just because proper disposal techniques may not have been discussed in class, the pharmacist is able to advise patients not to throw out their prescriptions into the garbage, down the sink, or flush them into the toilet. While several countries do not have systems in place to bring back medications to pharmacies for proper disposal – legislation, the will to make change, or a combination of both hinder policy making – lets take a look at one example where change is being made to help save our environment. In Canada, while there is no overall directorate that ensures proper disposal of pharmaceuticals, many provinces have taken the initiative to set up their own policies. In the province of Manitoba, prescription medications have always been allowed back in the pharmacy for proper disposal at the owners cost.

This cost hindered the advertisement of this program to the public and subsequently proper patient education on how to properly dispose of medications. This however, did not stop nearly 9400kg of expired medications from being returned for destruction. In early 2010, the Manitoba government issued regulations for stewards' to take responsibility for household hazardous waste (of which, pharmaceuticals are included) where the costs to collect, transport, and destroy the medications would be covered by drug manufacturers, a venture that was similarly set up in the province of British Columbia. New statistics on how well the program is working in Manitoba have yet to be released.

Dr Massoomi offered his opinion of what needs to take place on a global scale:

- Global policies on NO landfill and NO sewering of unwanted pharmaceuticals;
- There needs to be universal rules/regulations for the handling of unwanted pharmaceuticals;
- Regulations need to be easy to implement, monitor and control;
- Drugs need to be designed using the 'Cradle to Cradle' concept proposed by Christopher Daughton, PhD of the US EPA (design a drug with the end in mind; the European Union also call this the Green Pharmacy concept where drugs are designed with the end product and the impact to environment in mind);
- Establish a pharmaceutical industry and government sponsored global take-back program that engages pharmacies across the globe to easily and safely take unwanted medications from the public. Pharmacists are the best health care professionals to help with addressing this issue based on the security of the pharmacies, possible engagement with pharmacovigalence studies, and cost waste estimation for governments providing universal health care;
- Education of public on their role with minimizing the expectation of receiving a 'pill for every ill' and their role to properly dispose of unwanted medications sitting in medicine cabinets;

- Engage the pharmaceutical industry not only on designing 'green pharmacy' drugs but holding them accountable to do studies not only on humans but on the environment, and more importantly, assuring that refuge and waste from all of these facilities adhere to strict environmental regulations and standards;
- Globalize the Stockholm County council's Environmentally Classified Pharmaceuticals drug reference and consider a global formulary based on the PBT index for safety. If a drug has a negative PBT (Persistence; Bio-accumulation; Toxicity) score, hold the pharmaceutical industry responsible for redesigning the drugs if possible and require the industry to set up a process to properly collect and dispose of unwanted negative PBT drugs;
- Education of health professionals to minimize unnecessary prescribing of medications, look to quantity limits for starting new therapies, and globally ban the use of drug samples (33% of drugs patients receive are never used)
- Unwanted and waste pharmaceuticals are properly collected in communities and sent to a highly regulated waste to energy incineration facility. There are facilities throughout the world that can effectively do this now.

We may be challenged by a lack of resources or policy to help prevent the improper disposal of medications, however, as pharmacists, we have the opportunity to start changing the way people dispose their medications and medication packaging in an environmentally sound manner. We must take on a team approach by all stakeholders - researchers, drug manufacturers, distributors, prescribers, and users because polluting affects everyone from the rich to the poor, and because fresh, clean, potable water is becoming a finite resource. Developed countries with sound programs in place should offer to help developing countries to set up the necessary facilities that are needed to mitigate pharmaceutical environmental pollution (remember the water cycle?). Drug manufacturers should lead the way with green pharmacy initiatives instead of waiting for government legislation to enforce better environmental practices. As a profession, pharmacy must adopt the belief that patient safety not only pertains to the patient and the drug but to the patient, drug, and the environment as a whole.

Some helpful links:

http://www.enviroadvisory.com/pdf/Takeback.pdf http://www.medicationsreturn.ca/manitoba_en.php



ON DISPLAY

Advit Shah

The display booths located in the exhibition hall had a lot to offer the delegates of the FIP World Congress in Hyderabad. From member organizations to a bookstore selling the latest pharmacopeia, the content on display was rich with information. The booths seemed to focus on the many different schools of pharmacy available in India, each vying to show off what makes them better than the next, each hoping, perhaps, to recruit the future's best. There were also a few booths that showcased much of India's leading pharmaceutical industry, such as ACG Worldwide. For Assistant Manager of Corporate Marketing, Brijesh Pandya, ACG's decision to attend the conference was to gain more international exposure. Already the number one manufacturer of gelatin capsules in Asia and second overall worldwide, Pandya explains the company offers more than just a wide variety of gelatin and plant-derived capsules, but also tableting, automated filling machines, and packaging solutions. "Being here for the first time at the FIP conference offers us a good advantage to highlight our industry to pharmacists, not just manufacturers," explains Pandya. "Overall, the feedback has been positive the first few days, but it is going away now that we've reached the end of the conference." Based on their initial reactions, ACG, according to Pandya, would likely be coming back to join the FIP World Congress in Amsterdam. "We'd like to gain further exposure."

Exposure is exactly what was on the mind for John Corr, a representative from the Pharmaceutical Society of Ireland (PSI), who was more than eager to present his booth showcasing the 73rd FIP World Congress in Dublin, Ireland in 2013. "I'm here to bring attention to Ireland" he smiles, "and Dublin is a city with a lot to offer." The conference will focus on the growing complexity of patient care. With a theme of Towards a Future Vision for Complex Patients: Integrated Care in a Dynamic Continuum, Corr explains why the PSI solicited the FIP to hold the World Congress

in Dublin. "We are in a transition period in Ireland. We are bringing in integrated models with other professionals and starting to offer more services such as vaccinations. A lack of regulations has held us back, compared to the U.K., but that is all changing now." So with all the changes happening in country, the theme seems very fitting for the 45,000 pharmacists of Ireland who eagerly await what the future holds for them and how they too can manage a more complex work environment

An adjacent stand was already getting us ready for next year. The 72nd International Congress of FIP teams up with the Royal Dutch Pharmacists Association and will be hosting the 100th anniversary in Amsterdam, The Netherlands. The theme of Improving Health through Responsible Medicines Use promises to bring groundbreaking events including a Ministerial Summit, a Stakeholders Roundtables, and a centennial themed exhibition that will display the products and activities of FIP member organizations. Program highlights include interdisciplinary collaboration, patient safety issues, responsible medicines use, and discussing the future drug supply chain, to name a few. Come join the excitement and be a part of history as the FIP celebrates its Centennial World Congress from October 3rd to 8th, 2012!

Many delegates were seen walking through the exhibition hall, reading the submitted posters, and conversing with staff from the booths. The style and presentation of this FIP conference differs from many North American exhibitions that are usually flooded with giveaways, contests, and more importantly, the latest in clinical information for pharmacists by the leading pharmaceutical manufacturers and research companies. However, for Wael Helal of Egypt, he was quite impressed with what the booths had to offer saying that the room was "well organized, multinational, and the largest and best displays" he's seen. "I'm not disappointed in any of it."



FOSTERING CAREERS AND LEADERSHIP

IN PHARMACY AND EDUCATION

Tina Brock

More than 100 international pharmacists participated in a leadership development panel discussion during the 71st International FIP Congress in Hyderabad, India. The session was co-organized by the Global Pharmacy Education UNITWIN project and the African Pharmaceutical Forum and sponsored by Phi Lambda Sigma Leadership Society. The overall goals of the session were applicable to all leaders but because of UNESCO's specific attention on scaling up female leaders in the developing world, the role of gender in leadership was also considered.

The session began with an overview of leadership issues facing women in scientific, academic and professional organizations led by Prof Tina Brock (Associate Dean for Teaching and Learning at the University of California, San Francisco, USA). Following this, a panel of female leaders in pharmacy settings from around the globe shared their personal experiences of professional leadership.

First, from the academic perspective, Dr Patricia Acuña-Johnson (Professior Titular Departamento de Ciencias Farmacéuticas, Facultad de Farmacia at the Universidad de Valparaíso, Chile) described a professional harmonization project involving six of the nine pharmacy programs in Chile that has resulted in the development of a new core curriculum starting in 2013. She explained that having trusted leaders at each site who learned to work together without fearing a loss of individual power was the major reason for the success of the project. This degree of academic leadership in

Latin America was also related to a history of collaboration established via Pan American Conferences held across the past 20 years.

Next, Dr Sunitha Srinivas (Associate Professor at the Faculty of Pharmacy at Rhodes University, Grahamstown, South Africa) described her personal leadership journey within the context of pharmacy in India, where there are typically more female students within a cohort, but this ratio has not been sustained by the number of women in academic leadership. She compared this with her experiences in Africa, describing the proactive mentorship that occurs for females especially those who may be the first black female students in specialty fields of sciences. Dr Srinivas was identified as a leader very early in her career, serving as the very first Pharmabridge mentee. Overall, she credits strong family support and both male and female mentors as being key to her academic success.

In the next segment, the focus shifted to perspectives on leadership in professional bodies. Ms. Helen Gordon (Chief Executive of the Royal Pharmaceutical Society of Great Britain, United Kingdom) described the recent changes in her organization that have required a variety of leadership skills. She views the professional body as being key to both leading the profession and helping leaders in the profession. In order to better support the contemporary needs of the profession, she recommends that we actively welcome diversity - learning and networking in ways that suit busy people including flexi-time, part time and better support for locums in all settings. Finally, Archna Mudgal (Secretary of the Pharmacy Council of India) led an inspiring discussion of leading by influence, not authority. The Council has a regulatory mandate to protect patients. It has also been influential in improving practice through mechanisms such as establishing a quality framework for clinical practice. Her perspective on the growth of visionary leadership in the pharmaceutical sector in India combines vision, mission and strategy in order to affect change in the system.

After the conclusion of the panel presentations, facilitators – Ms Andreia Bruno (University of London), Dr Fatma Jeragh (Kuwait University), Ms Arijana Meštrović (Atlantic Farmacia), Jurate Svarcaite (Pharmaceutical Group of European Union) – facilitated queries between the session participants and panelists on topics such as work-life balance, supervisory and peer mentors, how to decline responsibilities respectfully, differences between male and female leaders, and how to build a successful team.

Following this interactive session, Mr Azubike Okwor, President of the African Pharmaceutical Forum, served as the session rapporteur, applying the leadership lessons described therein to the African development context. Dr Catherine Duggan (Director of Professional Development at the Royal Pharmaceutical Society of Great Britain, United Kingdom) closed the discussions.



COUNTERFEIT MEDICINES

Advit Shah

It is always funny to read an article that starts off with a definition or one that quotes Webster's Dictionary, as if from the very beginning the writer fears of giving a false impression. In pharmacy, there should be some general understanding of what a counterfeit medicine is. Dr Sabine Kopp, representing the World Health Organization (WHO), counters this belief by explaining that there are many definitions or misunderstandings of what a counterfeit medicine is. The world was not initially prepared to deal with counterfeit medicines, so in the process many different terms arose: spurious, falsified, falsely labeled, and of course, counterfeit.

It is believed that the art of counterfeiting medications began in the early 1980's and originated in many of the WHO's member states. In 1992, the WHO came up with a definition of counterfeit medicines which has been adopted by many of its member states and reads as "medicines that are deliberately and fraudulently mislabeled with respected to identity and/or source." Since there was a lag time between the realizations of falsified medications in the 80's to the current definition, many terms still exist.

Counterfeit medicines exist everywhere in the world with no one country being immune to its potential dangers (including treatment failure and even death). The practice of counterfeiting medication is illegal in every country mostly due to the breaking of patent laws or copyrights, not because there are sufficient laws and policies put into place to deter these actions. As the WHO states, "counterfeiting is greatest in regions where regulatory and enforcement systems for medicines are weakest. In most countries with effective regulatory systems and market control (i.e. Australia, Canada, Japan, New Zealand, most of the European Union, and the United States of America), incidence of counterfeit medicines is extremely low – less than 1% of market value according to the estimates of the countries concerned."

The plight of counterfeits doesn't just affect name-brand medications, but generics as well, and from every drug class. Examples include anti-diabetic medications,

anti-malarials, medications to treat erectile dysfunction, biologics and neuropsychiatric drugs. The International Medical Products Anti-Counterfeiting Taskforce says, "In developing countries the most disturbing issue is the common availability of counterfeited medicines for the treatment of life-threatening conditions such as malaria, tuberculosis and HIV and AIDS." Dr Kopp states that the "influx of medications into a country is huge and difficult to monitor." Drugs enter a country through procurement agencies, donations, drug programs, and trade. Monitoring all the different ports of entry and all the different methods that drugs can enter a country is difficult even with the proper authorities and procedures in place. However, the "WHO is offering tools, norms and standards, policies, and support for any country that is wanting to decrease the number of counterfeit drugs entering their land" says Dr Kopp.

According to 2008 statistics from the Taxation and Customs Union branch of the European Commission, India accounts as the country of origin for nearly 52% of fraudulent medications intercepted by border patrols for the European Union, down from 75% in 2005. Syria, China, Ukraine, and even the United States of America also appear on their list. Bejon Misra, from Partnership for Safe Medicines in India, was quick to play down India's role in counterfeit medication manufacturing saying that "only 0.3% to 0.4% of samples collected were spurious" and made the audience aware of the country's fine reputation in manufacturing quality name brand and generic drugs. This sentiment was also acknowledged by the Taxation and Customs Union branch of the European Commission.

The reasons for counterfeiting medications are numerous. Some seek medications that are sold cheaply from non-regulated outlets, some have limited access to authentic medications, the selling of fake medications is lucrative, expansion of markets may be too great for the demand of authentic medications to keep up, shortages, a lack of political will to make change, lax sanctions against criminals and a failure by stakeholders to recognize the problem at hand.

While at a press conference discussing counterfeit medications, Dr Michel Buchmann, FIP President, said that FIP, along with the WHO and the World Health Professions Alliance (WHPA) are working together to combat falsified medications. He admits though, that they are on the rise and may in part be due to a "worrisome situation that innovation of new drugs is decreasing especially in such areas as HIV, tuberculosis, and malaria. This may be due to increased costs of medicines and higher demands of safety and quality." He suggests all healthcare workers must use medications more responsibly and, even though it is a difficult time in research with the current world economy, that we develop and discover new drug molecules. This in turn can help mitigate the influx of counterfeit medications.

During the group sessions that were focused around case studies, delegates were put to task of coming up with possibilities for reducing falsified medications. During these round-

table discussions, a leader was chosen from each group to act as a mediator to everyone's voice. They offered practical feedback to forms and policies that were drafted before the FIP World Congress. For pharmacy intern Rama Mylapuram, this symposium and discussion group was important to learn about "counterfeit drugs and how to eradicate the problem, not just here (in India), but in other countries. This is my first time seeing the feedback form and how I am to use it to report spurious medications." Mylapuram suggested, "using a tracking system on offenders so that we know where they are at all times," as a way of reducing counterfeit medications. "We need to do something about the policies in place because these criminals are using loopholes in the justice system to become free and then reoffend again."

The impact of counterfeit medicines not only affects human health, but also our economies. The WHO reports that 10% of all drugs on the Russian market are counterfeit; that sales of counterfeit drugs is a staggering \$66 million USD in Peru and in Lima alone, there are currently 1800 illegal pharmacies selling falsified medications; 25% of Indonesia's \$2 billion pharmaceutical market is made up of counterfeits and that the National Quality Control Laboratories in Kenya found some medications to be nothing more than chalk and water.

A lot has already been said on what needs to be done to stop spurious medications, and solutions are often long-winded and arbitrary in every report on counterfeit drugs. Policy needs to be there. Who is going to step up to the plate and make change happen? Who better than a pharmacist that is equipped with the best knowledge on drug behavior to make change? Are you doing all that you can to mitigate this growing problem?

For more information on FIP's involvement in the fight against counterfeit medicines please visit the FIP website at http://www.fip.org/counterfeit_medicines.



ADDRESSING THE NEEDS OF VULNERABLE PATIENTS

Advit Shah

What defines a vulnerable population? In their book, Vulnerable Patients in the United States, Dr Leiyu Shi and Dr Gregory Stevens broadly define vulnerable populations as "those that often lack the necessary physical capabilities, educational backgrounds, communication skills, or financial resources to safeguard their own health adequately." Healthy People 2020, a 10-year national objective for improving the health of all Americans issued by the U.S. Department of Health and Human Services, identify vulnerable populations by determining if health disparities exist. "If a health outcome is seen in a greater or lesser extent between populations, there is disparity. Race or ethnicity, sex, sexual identity, age, disability, socioeconomic status, and geographic location all contribute to an individual's ability to achieve good health." These differences amongst people are somehow leading to greater obstacles in obtaining proper healthcare or health equity, the "attainment of the highest level of health for all people. Achieving health equity requires valuing everyone equally with focused and ongoing societal efforts to address avoidable inequalities, historical and contemporary injustices, and the elimination of health and health care disparities." Identifying these sub-populations, in theory, would also make it much easier for epidemiologist to show unbiased statistical information to the government where funding and infrastructure need to be placed in order to end health inequalities.

Although the above preamble focuses on statistical information from the United States, the sub-populations identified can be roughly seen as the same Worldwide. With this in mind, the session of Current Issues – Vulnerable Populations: What are their Medicine/Health Information Needs and How can we Address these Needs? attracted a room full of delegates from around the world who wanted to

learn more about helping to curb healthcare disparities. Priya Bahria, from the United Kingdom, was first to present an interesting topic on Communicating on Medicines to Adolescents. As health professionals, we usually associate health disparities and the word "age" with older populations of people - senior citizens. Bahria's research, sprinkled with some anecdotes, showed that the teenage population also suffers from health inequalities. "The leading cause of disability in young populations, aged 10-24 years," states Bahria, "is neuropsychiatric disorders", such as anxiety. These teens are in the stage of life where their bodies are developing, where the slightest differences amongst their peers can lead to taunting and ridicule, which could possibly lead to the development of anxiety. If they have other healthcare needs, it further compounds the issue. Bahria says that autonomy of medication use starts at the age of 11 or 12 years and is complete by the age of 16 years, however this demographic shows poor adherence rates especially in chronic disease management such as diabetes and asthma. "This is due to concerns of dependency on the drug, uncertainty of the medicine's benefit, adverse effects, and failing to see the (long-term) benefit," Bahria reveals. She adds that teens have limited knowledge and are easily confused when it comes to the efficacy of medications or drug therapy with many of these adolescents receiving their drug information from package inserts, physicians, family members, schools, and the internet. "The pharmacist was not even mentioned!"

The rest of her lecture talked about the reasons communication between healthcare workers and teens fail, including a perceived superiority complex and a lack of empathy. Bahria pleads the case for proper communication at this stage of life, as medication management is relatively simple. These adolescents will eventually grow up and may need more complicated medication regimes that require a lot more time and effort in ensuring they understand how and when to take their medications – which is especially more difficult when cognitive skills decline. What they know now, and where they can get the best medicines information – the pharmacist – will greatly aid adherence, compliance, and hopefully even decrease healthcare costs in the future. The pharmacist, without doubt, is in the best position to help this vulnerable population succeed.

The next presentation focused around tailor fitting patient information leaflets to the individual based on age, gender, and medical condition and if there was any advantage in adherence if benefit information was included. The findings were from an international study done showing that patients wanted clear, unbiased information regarding the side effects they might encounter and the benefits in taking the medication prescribed. There was a consensus that the medical leaflets provided by the manufacturers contained more information on the harms of the medication rather than on the benefits of taking it. After retooling the infor-



mation into a consumer-friendly and readable manner, a benefit statement including the 'number needed to treat' was added to see if the information became more attractive to the patients when seeing the advantage of taking the medication.

The results for the benefit statement were not what the researchers expected. Some saw the proclamation to be discouraging especially for those who had allergies (or another adverse reaction) to the medication and were left wondering if there was an alternate medicine that could give them the same results. The number needed to treat was difficult to assess as some didn't understand the statistic and translated that into a benefit of taking the medication; some misinterpreted the stats and some became leery of what the number meant. As for tailororing medicines information to specific patients, the need for this arose when it was identified that manufacturer-provided leaflets were lengthy, content-dense and included many indications that were not necessarily pertinent to the patient. The researchers concluded that the targeted information, based on age, gender, and specific condition, was well received by patients and was considered to be more meaningful, gave a personal touch, and was more succinct. However, potential problems were identified with tailor fitting the information such as the feasibility (computer equipment, time, and man-hours), safety issues (wrong patient receiving the information or a caregiver is dealing with the information), the quality of the information (how up to date it is), and the costs involved in setting up such a time consuming process.

Delegate Jean-Pierre Gregoire, a Canadian researcher in pharmacy and social practice attending his seventh FIP Congress, said that this lecture was important to him because "he works in the theme of adherence and it is nice to learn about perceptions and the drug information that patients get." He identifies the elderly as the most vulnerable population due to their use of polypharmacy and sometimes lack of drug education. Gregoire included that he really enjoyed the first half of the seminar because it was refreshing to see more "qualitative versus quantitative studies" being presented.

The ability to resolve health disparities can only be achieved if a true relevance is established. The public has to make policy makers - those that govern our rights to healthcare - make changes. However, Dr Shi and Dr Stevens write, "although most Americans are concerned about the plights of the vulnerable populations, relatively few have considered these to be their own problems. Few have the understanding that it is actually to their economic advantage to address the plights of vulnerable populations." But the responsibility not only lies with the public's awareness, or lack thereof, but also on the shoulders of our elected officials. Of course, they will argue that the cost of health equality would be a great financial strain on a fragile economy, but the cost of maintaining disparities is greater in the long run. Dr Shi and Dr. Stevens point out that, "the American public does not seem to relate the suffering of vulnerable populations to the suffering of the nation or to associate wasted human potential with

poor health status among vulnerable populations. Missed workdays, social and interpersonal violence, inefficient use of health care dollars, and compromised educational attainment are just a few of the factors putting America at a competitive disadvantage as a result of an insufficient health care system." This statement comes from a First World Country. Imagine the impact health disparities must be having on developing countries? While it is reasonable to conclude that health disparities and vulnerable populations will always exist, even with the best of efforts, is our society so complacent with that fact that we no longer see the value in health equality? In other words, are we turning a blind eye? What has pharmacy done to curb this issue from snowballing any further? Remember, Bahria mentioned that pharmacists were not even mentioned when teenagers were asked where they get their drug information.

One idea is to start in your local pharmacy, see where disparities lie and identify your vulnerable patients. Come up with solutions to these issues and see how well they work in your community. Then, form a committee with your local pharmaceutical governing body to help implement systems on a broader scale to eliminate these disparities by giving your examples on how your pharmacy dealt with them first. You can be the catalyst for change!

NETWORKING

THE MAGIC OF THE FIP CONGRESS

Advit Shah

Networking is an activity where groups of like-minded people gather together for various reasons during business meetings, social interactions, and conferences. The purpose of networking is to build new relationships, generate new business opportunities, and create possibilities for future collaborations, idea sharing, and strengthen established relations.

In countless surveys conducted by FIP, the number one reason participants state for attending the FIP Congress year after year is "networking". That is, exactly what has been mentioned above – like-minded people gathering with shared goals and vision in the globally unique setting that is the FIP Congress. From both an inside and outside perspective, networking at the event in Hyderabad spanned all generations of participants.

For young academics, the importance of networking, according to Juha Monkare, a PhD student from Finland who is presenting on behalf of the Young Pharmacist Group, is to learn "who is who", learn new ideas, and so that others in the same field know what your research is all about. This in turn, explains Monkare, will lead you to possibilities of finding other academics who may be able to benefit your research. Monkare acknowledges that there are many barriers in networking including not knowing anyone, personality issues, and accessibility to networking opportunities due to unsupportive work environments, high costs for attending conferences, or failing to see the importance of building new relationships.

Further supporting this notion of peer-to-peer networking is mentoring, a form of networking where one established academic or professional guides a novice academic or professional. The benefits of having a good mentor are numerous, states Monkare, and includes increased productivity, visibility, the possibilities for publications and future employment.

For Atefa Noorain, an Associate Research Analyst with Thomson Reuters, the importance of attending this session was "to make connections with mentors and to help focus my thesis when I start my PhD program." She states, "I want to find a good mentor. One that just won't praise me, but will criticize me. I've had that and it didn't work for me. I didn't get any results with my earlier research. I've also had a mentor that gave me criticism and it really helped me to get results. You have to have two-sides of the coin."

Attending her first conference ever and presenting a poster on Skin Care Products, the FIP World Congress has been a "great platform" says Noorain, who thanked her



Visitors to the Exhibition

family and workplace for encouraging her work and for the great opportunity to attend the four-day event. "Being here and learning how to network will give me skills that I can use in the future when it comes to finding my PhD mentor." Transferable skills she wants to utilize in the hopes of presenting at other conferences in the future. Noorain relates her FIP First Timer experience as "a great honor to host the event in my home country. FIP has motivated all of us (delegates) to learn more about different topics."

Ralph Altiere from the University of Colorado explains that networking is essential any career at any stage of life. "Start this process as a student" he encourages, "and put yourself out there. The process can take years, but it is important to keep in contact and follow up with these people to let them know what you are doing now and where you want to go in the future." His advice is to stay positive about the work that you do. "Avoid being negative because it reflects poorly on you. Also, its important to know that some people will want to take advantage of you and hurt your career. Exercise some caution when explaining any unpublished ideas."

Altiere explains that mentors also learn from their students and that they don't always have encouraging words, but rather test your skills and abilities by constantly questioning your work. This may lead to frustration and the feeling that your work is not being appreciated or valued. At the same time, Altiere cautions, "your mentor should be supporting you, not hindering your academic career."



Members of the Young Pharmacists Group at the Hyderabad YPG night

It is also important to understand that face-to-face networking is not the only form of networking available. Online networking has quickly become the means of many companies of growing their circle of business contacts and publishing their services. Many barriers such as affordability to attend conferences or spending cash on 'wining and dining' clients are eliminated. Time zone differences are also greatly reduced.

This online platform is exemplified in the web-based Deans Discussion Forum of the FIP Academic Institutional Membership (FIP AIM). Each year, the FIP AIM hosts an in-person Dean's Forum, inviting all representative Deans from the Faculties and Schools within the Membership to meet each other and discuss current and relevant topics in an international arena. Expert Speakers from around the world as well as innovative interactive opportunities are featured over the 2-day event, which spark much motivation and enthusiasm amongst participants.

This however, is only two days of the year, so in order to keep up this positive energy and visionary thinking, the online FIP Deans Forum was established to give AIM Deans an opportunity all year long to connect, exchange ideas, share challenges and outcomes and project topics for the following year's event.

It is important to know, however, that social networks such as Facebook and Twitter may not be the online platform that is appropriate for an academic setting to network within. Many

of these sites post personal information that is not relevant to your career and may in fact hurt your academic ventures, so best to stick to well known business networking sites such as Linked-in or professional website initiatives such as the FIP AIM Deans Forum.

The whole of the FIP Congress hosted wonderful venues for engaging the audience in an abundance of networking opportunities. Business cards were exchanged by many and those that were especially open-minded to meeting new people and exchanging life experiences reaped many benefits.

The global network offered this and every other year at the FIP Congress is what sets this event miles ahead of its contemporaries – join us next year at the FIP Centennial in Amsterdam and fuel this philosophy!



RECOLLECTIONS FROM A FIRST TIMER

Advit Shah

For Babu Koppula, attending his first FIP World Congress was an experience he will never forget. The soon to be graduate from the St. Peter's College of Pharmacy in India is not only representing his faculty but also presenting a poster on his research titled, Pharmacogenomics: a drug-gene study. When asked what brought him to the conference, other than his research presentation, Koppula states that he wanted to view "current pharmaceutical research in the world. When I heard the FIP was coming to India, I didn't know much about it (the organisation), so I did a little research, and submitted my poster." Koppula hopes to work on the research and development side of industrial pharmacy upon graduating later on in the year and views pharmacy as the branch of science that deals with both technology and health sciences. "I consider it better than being a doctor because I get to know about drug pharmacology, pathophysiology, and pharmacotherapy, ensuring the right drug gets to the right patient in the right dose."

Koppula's enthusiasm for the conference is evident as he quickens the pace in which he talks about meeting some of his idols in pharmacy. "I've studied his books!" he exclaims when referring to Anandha Narayanan of which he met and had a brief discussion with. His excitement continues when talking about meeting another "legend in pharmacy", Dr Tsunagi Nagai. "There are no words to describe what it meant to meet him" adding that he was asked to help translate and guide the professor and his delegates during the four-day conference. "He encouraged me to keep going even if I suffer set backs," then, Koppula emphatically states, "he asked me to join him at a private party for the Japanese delegates after the Gala Dinner!" The opportunity to network amongst his peers was not lost on Koppula who has already made great connections and hopes to continue doing so next year. "I will be damn sure that I will be in Amsterdam... there is an ocean of knowledge here and I can't wait to see what the conference has to offer next year."

Koppula was not alone when it came to being excited to attend the conference. Many of his Indian peers seem to generate an air of enthusiasm about hosting such a large world congress in India. One could see the smiles across these pharmacy student's faces and not help but comment on the hospitality that many of the delegates received. The pharmacy student's themselves maybe had some inclining that change was about to happen in their country with respect to their profession; that perhaps hosting the FIP conference was the catalyst and they wanted to be a part of it: to show the World what India can offer, what India's pharmaceutical industry can offer, and how willing India's pharmacy profession is to accepting and viewing change. Upon seeing the President of India, Babu states, "if the President comes, it comes as a great respect to have someone who represents 1.2 billion people to welcome the world. It's the best thing that's happened to me thus far."





3-8 OCTOBER 2012

AMSTERDAM, THE NETHERLANDS

www.fip.org/centennial

In 2012, the International Pharmaceutical Federation (FIP) will celebrate its 100 year anniversary and as such will host the FIP Centennial Congress, together with the Royal Dutch Pharmacists Association (KNMP).

The Centennial will take place from 3-8 October, 2012 in Amsterdam, The Netherlands and will welcome thousands of pharmacists from around the world on a global platform of learning and networking.

The 2012 edition of the annual FIP Congress under the theme of 'Improving Health through responsible medicines use' will be a turning point for the profession on a global level. In addition to symposia, poster presentations, an extensive exhibition and a vibrant social programme, a high level Ministerial Summit and Stakeholder Roundtables will set the stage for the future.

The Centennial will offer all participants a venue for enriching their career while at the same time participating in events and decisions that will steer the future of pharmacy and healthcare around the world: The future of Pharmacy, be part of the creation.



" See you next year at the FIP Centennial event in Amsterdam!"