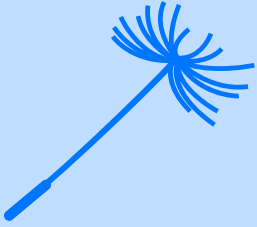


FIP Foundation for Education and Research  
ANNUAL REPORT 2018



## FOREWORD

The FIP Foundation for Education and Research has the objectives of promoting the educational and research ventures of pharmacists and pharmaceutical scientists and expanding its role into charitable projects that contribute to global health.

In 2018, we tabled a plan to enable the FIP Bureau and FIP's section to work with the foundation to commence new programmes that would support pharmacy practice and pharmaceutical science globally.

It is important to remember that the original purpose of the foundation is to enable FIP to promote healthy outcomes in a tax-free environment. Having approved new statutes, the foundation can move forward with confidence to a brighter future and we are delighted to have some programme suggestions from the CEO and the president of FIP. This enables us to progress and identify new programme funding options as well as to continue with the ongoing awards programme sub-committee, so ably supported by Lee Vermeulen and his committee.

The programme sub-committee recommends scholarships to be awarded to individual forums and other grants to members and postgraduate students.

The foundation is also responsible for the Pharmabridge and Pictogram projects. It is difficult to raise corporate contributions for these individual programmes and we look forward to individual pharmacists and pharmaceutical scientists donating generously to the foundation so that we can keep supporting young pharmacists in gaining new skills and international experience and understanding to advance the profession.

I ask FIP members, especially, to consider making a donation with their annual FIP membership fee, or by directly contacting Mrs Carola van der Hoeft, executive director of the FIP Foundation for Education and Research.

I would like to thank Mrs van der Hoeft and Mrs van Kesteren, FIP's executive secretary, for their help and support during 2018.

Finally, I would also like to thank Mr Jordan and Dr Duggan and the FIP staff for their support and co-operation with the foundation.

**John Ware**

*Chairman*

FIP Foundation for Education and Research

## PROJECTS AND DEVELOPMENTS

### COMMUNICATING MEDICATION INSTRUCTIONS TO PEOPLE WITH NO COMMON LANGUAGE

The foundation has continued to support the FIP pictogram project. Pictograms give health professionals a means of communicating medication instructions to people with no common language or who are illiterate, or both. Pictograms may also be used for those who have slight cognitive impairment. FIP's Military and Emergency Pharmacy Section (MEPS) took over this project in 2004, which was created in 1983 by a small group of pharmacists.

In 2018, Dr Régis Vaillancourt, FIP Foundation pictogram project lead, tested nine pictograms at the 2018 [FIP congress in Glasgow, UK](#), to determine whether pharmacists could understand their meaning without explanation, with the aim of improving patient understanding of medication instructions.

Dr. Vaillancourt collected data from 76 pharmacists from all over the world, 23 of whom worked in hospitals. Preliminary results of this project demonstrate that six of the pictograms will likely need to be redesigned, but three were well understood.

- Pictogram for medicines with a high risk of calculation error, guessed by 91%.
- Pictogram for medicines requiring dilution, understood by 87%.
- Pictogram representing concentrated electrolyte solution, understood by 86%.

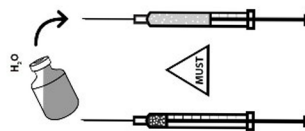
These three pictograms meet the International Standards Organization (ISO 91686) threshold of 86% comprehension for the testing of safety signs.

The next step will be testing the three successful pictograms in a simulation study. In collaboration with researchers — experts in using simulation to improve safety in hospitals — Dr Vaillancourt will test whether the pictograms help nurses to make safer choices when administering medicines. If the results of the simulation study are positive, these three medication safety pictograms will be ready to be included on high risk medicines in hospitals.

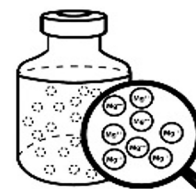
“The FIP Foundation pictogram project continues to garner international interest. There are ongoing projects in Singapore and Malta to test whether FIP pictograms can be used to improve elderly patients’ understanding of medication instructions. I am also redesigning the PictoRx software that allows pharmacists and other health care providers to create illustrated medication labels, calendars and storyboards from validated pictograms that depict the different components of medication instructions, such as indication, dose and route, frequency, side effects and precautions. We hope to have the new version available on FIP’s website in the near future,” Dr Vaillancourt said.



High risk of calculation  
/ dosing errors



Needs further dilution



Concentrated electrolyte

## LINKING PHARMACISTS FROM LOW-INCOME AND DEVELOPING COUNTRIES

The FIP Foundation has continued to support the Pharmabridge programme. This initiative is aimed at strengthening pharmacy services and pharmacy education in low-income and developing countries (LIDCs). It was founded in 1999 with the main objective of sharing knowledge and experience through two principal initiatives:

**Book donations:** Complimentary copies of the “American Hospital Formulary Service Drug Information” books were sent to every new registrant from an LIDC by the American Society of Health-System Pharmacists. Additionally, 10 sets of five reference pharmacy books offered by the American Pharmacists Association were allocated to Bangladesh during 2018.

**Placements for practice exposure:** The programme links pharmacists from LIDCs to institutions (schools of pharmacy mainly) all over the world. This leads to three or four weeks of exchanging experience, resources and training in several domains: pharmacy practice, pharmaceutical science, the pharmaceutical industry and professional pharmacy education. In 2018, 22 people from Bangladesh (2), Egypt (2), Ghana (1), India (7), Indonesia (1) and Nigeria (9) were placed for practice exposure in Australia, Canada, Croatia, India, UK and USA.



One participant, Kiran Nagaraju, professor and clinical pharmacist at the Department of Clinical Pharmacy, KIMS Hospital and Research Centre, Bangalore, said: “An excellent programme to bridge the pharmacists of different practices. This programme will surely help in changing the attitude towards patient care. Personally, this programme has changed my level of understanding of patient care. Pharmacists can be a part of the health care system to do their best for the health outcomes of patients.”

Through a new pilot project launched by the Hospital Pharmacy Section (HPS) in collaboration with Pharmabridge, one pharmacist from Nigeria travelled to the United States to promote the Basel Statement. Others have been placed for 2019.

“Some of the highlights for Pharmabridge in 2018 were the positive feedback from our alumni and hosts all through the year. We are also proud to have been able to place 22 pharmacists for practice exposure. These placements could not have been organised without the generosity of the individuals and institutions hosting them, as well as funding donations which is duly acknowledged,” said Agathe Wehrli, Pharmabridge founder.

## IMPACTS OF GRANTS

Twelve grants were awarded by the FIP Foundation during 2018, making it possible for selected pharmacists and pharmaceutical scientists from 11 countries to participate at FIP's Glasgow congress. These grants enable participants to develop and/or help others to develop skills and knowledge in line with the objectives of the foundation.

The FIP Foundation paid a fixed amount of EUR 500 to each awardee to cover expenses during the congress and, additionally, it covered flight and visa costs, which varied from country to country. The amount granted by FIP Foundation ranged between EUR 750 and EUR 2,500 for each grant holder (including a Young Pharmacists Group Grant for Professional Innovation), raising the total amount awarded to EUR 20,750.

### GRANT RECIPIENTS

#### Travel grants awarded to:

[Ms Amira Alqaffas](#) (Egypt)  
[Dr Mudassar Iqbal Arain](#) (Pakistan)  
[Mr Wallace Entringer Bottacin](#) (Brazil)  
[Ms Forum Janak Jalundhwala](#) (India)  
[Dr Chun-Wai Mai](#) (Malaysia)  
[Mr Prosper Maposa](#) (Zimbabwe)  
[Dr Imhoagene Mary Ann Omony](#) (Nigeria)  
[Ms Antonija Petricevic](#) (Croatia)  
[Ms Walleri Christini Torelli Reis](#) (Brazil)  
[Ms Irsi Sukaj](#) (Albania)

#### Young Pharmacists Group Grant for Professional Innovation awarded to:

[Mr Jack Collins](#) (Australia)

#### Ton Hoek Scholarship for Global Leadership awarded to:

[Mr Mac Ardy Gloria](#) (Philippines)



Grant awardees and the FIP Foundation directors meeting during the FIP congress in Glasgow

## FEEDBACK FROM SOME OF THE AWARDEES

### GETTING INNOVATIVE IDEAS

“I am very grateful to the FIP Foundation that gave me the opportunity to attend the congress and highlight the need of our society in front of thousands of delegates through a poster presentation. It was also a great pleasure to hear my name announced in front of hundreds of delegates, with my presentation being among the top 10. As an academic pharmacist and as a pharmacy practice researcher, I learned a lot from this conference. Among the sessions I attended, I was particularly interested in pharmacy practice and the Young Pharmacist Group discussions. These sessions provided me with innovative ideas to take care of patients from the bench and beyond, improving their quality of life. Furthermore, I had the opportunity to network with professionals from different parts of the world. The FIP congress is an exceptional platform to exchange experiences.”

— [Mudassar Iqbal Arain \(Pakistan\)](#)



### BOOSTING CONFIDENCE

“The FIP congress is one of the best learning platforms for a [pharmacist]. It gives a broad overview of the different facets of the pharmaceutical profession. Every congress presents a new theme, new networking opportunities, new ways for cultural exchange, and much more. I look forward to attending many more FIP congresses to keep up with the changing pharma-world. I would also like to contribute more actively to FIP’s Industrial Pharmacy Section (IPS). The knowledge I have gained from the FIP congress in Glasgow will help me improve my future research work, which I aim to present in upcoming congresses. During the congress I had the opportunity to participate as a speaker at the ‘Industrial Insights’ event organised by the IPS, where I explained the role of quality assurance in the pharmaceutical industry. I had submitted my research for a short oral presentation and the FIP Foundation gave me the opportunity to present it. My presentation was well received by the audience. This also boosted my confidence towards my research studies in the future.”

— [Forum Janak Jalundhwala \(India\)](#)



### ENCOURAGING DEBATE

“For me, the FIP Congress was a time for introspection. It was an opportunity to learn and influence others. It is my hope that more participants keep attending from developing countries so that we have more professionals with the zeal to improve practice in their countries. The session I enjoyed the most this year was the one on cannabis for medical treatment. We should consider the debate on the benefits and threats it bears. Particularly relevant to Zimbabwe was the training on pharmacy-based immunisation delivery and the presentation about biosimilars: ‘Biosimilars: The science, regulation, practice and education of follow-on biologic pharmaceuticals’. As a country we need to push and move forwards to add value to the profession. FIP provides a platform for networking at congresses and gives access to resources to their members. I wrote an opinion piece about the world congress and published it in the *Pharmaceutical Journal of Zimbabwe*, encouraging readers to visit the FIP website and read about membership benefits.”

— [Prosper Maposa \(Zimbabwe\)](#)



#### FINDING NEW MODELS

“As an assistant director of education, professional development and business organisation in the largest Croatian pharmacy chain, I have the duty and obligation to find new models of acquiring knowledge, maintaining motivation and strengthening the role of pharmacists in my home country. Through numerous outstanding lectures and experiences from international colleagues I have learned about models that pharmacists have embedded in their country’s health systems to show that they are irreplaceable partners to their patients. I learned about teamwork, collaboration, and services through pharmacies that connect pharmacists and other health system members. In many moments of this Congress I felt that also Croatian pharmacists have a lot to offer the rest of the world and therefore I feel encouraged to cooperate more actively. I want to further develop pharmacy in my homeland and encourage many other young people to feel the same pride one day. Thank you once again for the opportunity.”

— Antonija Petricevic (Croatia)



#### MOTIVATED TO ENCOURAGE STUDENTS

“The FIP Congress was an excellent opportunity to get to know the reality of the pharmaceutical profession in different places around the world. It was amazing to see how many pharmacists from different countries strive to improve population’s health. I also had two great opportunities: First, attending a meeting with the foundation chairman and directors — where I met other pharmacists who received the same scholarship — networking and sharing some of our different realities; Secondly, participating in the Pharmaceutical Forum of the Americas, where I could see much of what is done in favour of pharmacy in my continent. As I said in my motivation letter, one of my goals was to share the experience gained in Glasgow with pharmacists in Brazil. Without doubt, it is time for great professional growth. I believe that an educator’s job, above all, consists of making students seeing the bright future of our profession. This is my mission, and I thank the FIP foundation for helping me with it!”

— Walleri Christini Torelli Reis (Brazil)



#### NEW INSPIRATIONS FROM THE CONGRESS

“The FIP congress left a rather positive impression on me. I learned about the latest developments in pharmacy through the 14 sessions I attended, and I had the opportunity to converse with highly experienced professionals and distinguished professors. Their discussions and advice helped me overcome some of my daily work challenges and to achieve my academic and career advancement goals. I came back home not only with unforgettable impressions, but also inspiration and with new objectives. I immediately and enthusiastically shared my experience with my closest pharmacist friends who had not previously heard of FIP scholarships, and encouraged them to be the next applicants and to become FIP members. FIP congress gives us the most excellent chance to showcase our experiences and to learn of others.”

— Irisi Sukaj (Albania)



### TON HOEK SCHOLARSHIP FOR GLOBAL LEADERSHIP

The foundation is responsible for awarding the Ton Hoek Scholarship for Global Leadership, with the aim of promoting global guidance and inspiration. This grant permits a young pharmacist or pharmaceutical scientist to travel to the FIP congress in order to develop, or to help others to develop, skills and/or knowledge in line with the objectives of the foundation.

This award is named after FIP's former chief executive officer Ton Hoek (1955–2012). In 2018, the scholarship was awarded to Mac Ardy Gloria, a young pharmacist from Philippines, who was doing his PhD in Health Technology Assessment (International Programme) at Mahidol University in Bangkok, Thailand.

Mr Gloria said: "My experiences at the FIP congress were both very meaningful and memorable. I believe that my participation at the Glasgow congress made me a more confident young pharmacist. It made me realise that I have the potential to contribute to something essential and impactful for the organisation, the pharmacy profession, and the people at a global level. It helped me in my aspiration and commitment to be a better pharmacist — to be globally competent, to lead, inspire, and be socially relevant in providing health care to all those people who are in need, regardless of their status or background. As a young, budding pharmacist who is just starting his profession and who has limited experience, this support meant a lot to me and I am very much thankful to the FIP Foundation for giving me this opportunity."



*Mac Ardy Gloria receives scholarship certificate at the FIP congress in Glasgow*

### YOUNG PHARMACISTS GROUP GRANT FOR PROFESSIONAL INNOVATION

The foundation, together with the FIP Young Pharmacists Group, awards a grant of EUR 1,000 to encourage innovation in pharmacy by a young pharmacist or pharmaceutical scientist who has limited resources for professional organisation involvement for their own research. The grant supports the implementation of the recipient's project. These projects can stem from any field of pharmacy but should directly or indirectly benefit or improve the health of communities and demonstrate the added value of pharmacy to health.

### GRANT RECIPIENT 2018

The YPG Professional Innovation Grant recipient for 2018 was Jack Collins, a PhD candidate at the University of Sydney, Australia, and a practising community pharmacist. His project explores whether implicit (unconscious) racial bias is present in practising community pharmacists through the use of simulated patients. "Implicit bias is where a person shows bias towards an individual or group without consciously doing so. Implicit bias can be due to someone's sex, age, race, weight, and so on. To date, no published research has explored this phenomenon in pharmacy practice," Mr Collins explained.

In order to explore this concept in pharmacy, female actors with different racial backgrounds were hired to ask for a product in different pharmacies in Sydney. Recordings of the interactions between the actors and pharmacists, as well as interviews with the actors after each visit were captured for analysis. Through this pilot research, Mr Collins aims to determine to what extent implicit racial bias



is present in pharmacy and then use these findings to explore other potential biases and eventually develop interventions to address this bias, if it exists, to improve uniformity in patient care.

Mr Collins will present the findings of this research at the 2019 *FIP congress in Abu Dhabi*, UAE.

“I am thrilled to make my way to my third FIP congress in Abu Dhabi later this year. The congress is a great opportunity to meet pharmacists from all over the world, share ideas, and learn about pharmacy from an international perspective. I am particularly eager about sharing this research at the congress this year, and as it is relatively new in the pharmacy field it will be great to share this exciting work with others in the field. I am hoping that getting the conversation started in this area of pharmacy will encourage others to collaborate and explore the area themselves in their home countries. It would be great to walk away from the congress with a few colleagues interested in this topic. I am also looking forward to meeting new people and catching up with colleagues from previous years and seeing how their research and practice has developed since Glasgow. It will be great to have this experience, and I thank the foundation for supporting my attendance at the 2019 congress,” Mr Collins said.



#### GRANT RECIPIENT 2017

The recipient of the 2017 Grant for Professional Innovation was Chelsea Thorn, a PhD student at the University of South Australia. Ms Thorn presented her research at the 2018 FIP congress in Glasgow, Scotland.

Her proposed project aimed to develop a formulation strategy for the glycoside hydrolase alginate lyase and antibiotic gentamicin. It focused on identifying the capabilities of glyceryl monooleate liquid crystalline gels to deliver alginate lyase and gentamicin to in vitro *Pseudomonas aeruginosa* biofilm models.

“Recalcitrant infectious diseases claim millions of lives worldwide every year due to an unprecedented surge in antimicrobial resistance. While research efforts are ramped toward developing new antimicrobials, this is a tedious, timely and costly approach with uncertain outcomes. The scope of my PhD research is to develop an affordable, efficient and advanced formulation strategy for patients that harnesses recent biomedical advances to amplify the effectivity of existing antibiotics. I have designed a bacterial-sensing drug delivery formulation that acts as a Trojan horse to disguise and deliver highly efficacious compounds to outsmart and eradicate the bacteria. The added benefit is to precisely target bacteria at the site of infection, eradicating the bacteria on demand, and prevent future development of resistance,” Ms Thorn explained.

The FIP Professional Innovation Grant in 2017 facilitated the early stages of Ms Thorn’s project and now she is progressing into pre-clinical studies from the successful results.

Ms Thorn said: “The Glasgow congress was an extremely rewarding experience. It was, furthermore, highly satisfying to present my work and engage others in my project. Everything about the congress was exceptional, from the scientific sessions to the social activities — you could not get a better conference. I am forever thankful to FIP for providing the funding to start my project and the opportunity to attend the Glasgow congress”.



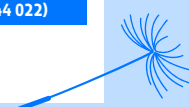
## FINANCES

### Balance sheet as at 31 December 2018 – After appropriation of the result for 2018 (Expressed in EUR)

		2018	2017
<b>CURRENT ASSETS</b>			
Prepayments and accrued income	1	3 914	1 180
Current account with FIP		23	-
Cash and bank	1	183 878	221 060
<b>TOTAL ASSETS</b>		<b>187 815</b>	<b>222 240</b>
<b>CAPITAL AND RESERVES AND LIABILITIES</b>			
Capital and reserves	2	127 690	150 500
Allocated funds for future projects	2	52 292	62 815
		<b>179 982</b>	<b>213 315</b>
Current account with FIP		-	196
Liabilities grants	3	1 000	3 750
Other liabilities	3	6 833	4 979
<b>TOTAL CURRENT LIABILITIES</b>		<b>7 833</b>	<b>8 925</b>
<b>TOTAL CAPITAL AND RESERVES AND LIABILITIES</b>		<b>187 815</b>	<b>222 240</b>

### Statement of income and expenditure for 2018 (Expressed in EUR)

		2018	BUDGET 2018	2017
<b>INCOME</b>				
Donations	4	25 107	35 500	18 040
Development Grant from FIP		5 000	5 000	5 000
<b>TOTAL INCOME</b>		<b>30 107</b>	<b>40 500</b>	<b>23 040</b>
<b>EXPENSES</b>				
Grants	5	20 750	17 500	26 605
Allocated costs	6	28 830	7 500	30 472
Operational costs	7	13 939	5 000	10 326
<b>TOTAL EXPENSES</b>		<b>63 519</b>	<b>30 000</b>	<b>67 403</b>
<b>OPERATING RESULT</b>		<b>( 33 412)</b>	<b>10 500</b>	<b>( 44 363)</b>
Interest and unrealised change on bonds	8	79	1 000	341
<b>FINANCIAL RESULT</b>		<b>79</b>	<b>1 000</b>	<b>341</b>
<b>NET RESULT BEFORE APPROPRIATION</b>		<b>( 33 333)</b>	<b>11 500</b>	<b>( 44 022)</b>
<b>Appropriation of the result, (from)/to:</b>				
Allocated funds		( 10 523)	( 1 500)	( 18 717)
50% result of Global Conference from Allocated Fund FIPEd		-	-	( 32 855)
50% result of Global Conference to Foundation Capital		-	-	32 855
FIP Foundation for Education and research Capital		( 22 810)	13 000	( 25 305)
<b>TOTAL APPROPRIATED</b>		<b>( 33 333)</b>	<b>11 500</b>	<b>( 44 022)</b>



## ABOUT THE FIP FOUNDATION FOR EDUCATION AND RESEARCH

The FIP Foundation for Education and Research is a not-for-profit organisation established in 1993. Its main objective is to promote the educational and research ventures of pharmacists and pharmaceutical scientists within the general fields of design, manufacture, distribution and use of medicines for humans or animals, or both.

Its work is sustained by donations and sponsorships, and it is thanks to this support that the profession of pharmacy has benefited through the foundation's research projects, professional advancement opportunities, publications, grants and awards. Your donation will help the foundation continue to create and develop programmes that advance the pharmacy profession.

### FIP FOUNDATION STRUCTURE:

Directors of the foundation in 2018 were:



**Mr John Ware** (Australia)  
— *chairman*



**Prof. Meindert Danhof** (Netherlands)



**Mrs Carola van der Hoeff** (Netherlands)  
— *executive director*



**Prof. Jenelle Sobotka** (USA)



**Prof. Giovanni Pauletti** (USA)



**Prof. Lee Vermeulen** (USA)



**Ms Ema Paulino** (Portugal)



**Dr Nobuo Yamamoto** (Japan)



**Dr Régis Vaillancourt** (Canada)

### WAYS TO DONATE

The foundation has its own website ([www.fipfoundation.org](http://www.fipfoundation.org)) so that people can find out more about the important projects we support and make direct donations. Donations and sponsorship are essential to our work and the foundation has expanded the ways in which donations can be made to include an [online form](#) (up to EUR 1,000) and [PayPal](#), as well as bank transfers and cheques. In addition, if you would like to donate gifts for future FIP congress raffles, please contact [foundation@fip.org](mailto:foundation@fip.org).

**It is thanks to the generosity of our donors that we can continue helping to develop the pharmacy profession.**





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To make a donation, or to find out more about the foundation, please visit:  
[www.fipfoundation.org](http://www.fipfoundation.org)



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