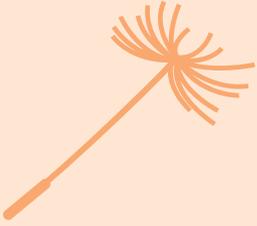


FIP Foundation for Education and Research
ANNUAL REPORT 2017



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.

The past year has been particularly difficult for the foundation. The completion of our survey of all available sponsorship sources coincided with the resignation of FIP's chief executive officer.

We had tabled a plan to enable the FIP Bureau and sections to work with the foundation using the contacts made in 2017 to commence new programmes that would support pharmacy practice and pharmaceutical science globally. However, the foundation presumed that the absence of a permanent CEO prevented the Bureau from dealing with this matter. This has been a most unfortunate situation as one of the original purposes of the foundation is to enable FIP to promote healthy outcomes in a tax-free environment. Having now restructured with new statutes, the foundation can move forward with confidence to a bright future.

The foundation is delighted that Catherine Duggan, such an active supporter of FIP over many years, has been appointed the federation's new CEO and we congratulate Dr Duggan on her new position. The foundation hopes that this new appointment will enable it to continue discussions and reach a final decision on how to proceed in cooperation with FIP.

One of the past duties of the foundation has been related to providing scholarships to individual forums and other grants to members and postgraduate students. The FIP Bureau has requested that the foundation now also be responsible for the Pharmabridge and the pictogram projects. It is difficult to raise corporate contributions for these individual programmes and we look forward to you, as individual pharmacists and pharmaceutical scientists, to give generously to the foundation so that it can keep supporting young pharmacists in gaining new skills and international experience and understanding.

Please consider making a donation with your annual FIP membership fee, or by directly contacting Carola van der Hoeff, executive director of the FIP Foundation for Education and Research.

Finally, I would like to thank Mrs van der Hoeff, Rachel van Kesteren, FIP's executive secretary, and FIP's professional secretary Ema Paulino for their help and support during 2017. The foundation believes that they have done a wonderful job in keeping such a large and complex organisation as FIP and the foundation operating.

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. The Military and Emergency Pharmacy Section (MEPS) of FIP, in 2004, took over this project, which was started by a small group of pharmacists in 1983.

In 2017, the pictogram project researchers — together with international collaborators — have continued their research on how pictograms can be used to improve patient understanding of medication instructions. In Canada, further research on validating the FIP pictograms that can be used effectively with elderly patients was completed. The researchers found that elderly participants were able to recall the meaning of all 13 pictograms presented after a one-month interval.

The pictogram project also has international collaborations with researchers in Brazil working on diabetes management, and in both Poland and Singapore working on comprehension and recall of pictograms in the elderly.

In 2017, Régis Vaillancourt, pictogram project lead, travelled to Singapore to present a workshop for collaborators on the design and validation of pharmaceutical pictograms.

Dr Vaillancourt also published a paper describing the validation of an international, consensus-based definition of the important concept of medication literacy. According to the experts consulted, medication literacy is the degree to which individuals can obtain, comprehend, communicate, calculate and process patient-specific information about their medicines to make informed medication and health decisions and therefore safely and effectively use their medicines, regardless of the mode by which the content is delivered (e.g., written, oral and visual).

“We anticipate that future studies will focus on how this definition can be operationalised to elaborate the role that pharmacists can play in supporting the medication literacy needs of patients,” said Dr Vaillancourt.

PictoRx is a 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. The latest version of the software is free to download at www.fip.org/pictograms.



STRENGTHENING PHARMACY SERVICES IN LOW-INCOME AND DEVELOPING COUNTRIES

The foundation has continued to support the Pharmabridge programme, which aims to strengthen pharmacy services in low-income and developing countries. Pharmabridge links individuals and institutions so that resources and training in pharmacy practice, pharmaceutical science, the pharmaceutical industry and professional pharmacy education are exchanged.

In 2017, 19 people, from Brazil, Ethiopia, Ghana, India, Indonesia, Nepal, Nigeria and Tanzania, were placed for practice exposure in Canada, Finland, Ghana, USA and South Africa. This brings the number of pharmacists placed since 2001 to 135. One participant, Zamrotul Izzah, lecturer in the department of clinical pharmacy at Airlangga University, Indonesia, said: “The learning and experience gained during the three-week visit at the St. Louis College of Pharmacy were invaluable and substantial to help in improving our teaching activities and pharmacy practices in Indonesia. I have learned about best practices for managing the curriculum of clinical pharmacist education, teaching methods, assignments and evaluations, experiential rotations, and clinical pharmacist practices in the United States of America.”

Many book donations are coordinated under the Pharmabridge programme. This year, book donations consisted of complimentary copies of the “AHFS Drug Information” books by the American Society of Health-System Pharmacists and the annual donation of 10 sets of five current pharmacy books offered by the American Pharmacists Association that were allocated to Tanzania.

“Some of the highlights for Pharmabridge in 2017 were the positive feedback from our alumni and a memorandum of understanding between the Goa College of Pharmacy (India) and St Louis College of Pharmacy (USA) which includes student and faculty exchange. We are also proud to have been able to place 19 pharmacists for practice exposure. Our goal for 2018 is to place at least 12 candidates. These placements could not have been organised without the generosity of the individuals and institutions hosting them, which is duly acknowledged,” said Agathe Wehrli, Pharmabridge founder.



IMPACTS OF GRANTS

Each year, the foundation awards a number of congress travel grants, making it possible for selected pharmacists and pharmaceutical scientists to participate at FIP's congresses, and to share their research and develop leadership skills.

These grants enable participants to develop and/or help others to develop skills and knowledge in line with the objectives of the foundation.

In 2017, 21 grants, ranging between EUR 1,000 and EUR 2,500, were awarded to pharmacists and pharmaceutical scientists worldwide (including a Young Pharmacists Group Grant for Professional Innovation).

GRANT RECIPIENTS

For the Pharmaceutical Sciences World Congress in 2017, 10 grants were awarded to:

Dr Amal Kamal Abdel-Aziz (Egypt)
Ms Sangeetha Iyer (India)
Mr Pradip Lamsal (Nepal)
Mr Abayomi Tolulope Ogunjimi (Brazil)
Ms Ozioma Onokala (Nigeria)
Mr Eko Setiawan (Indonesia)
Ms Keturah Chupee Smith (Liberia)
Mr Yonas Getaye Tefera (Ethiopia)
Mr Henok Getachew Tegegn (Ethiopia)
Ms Micaela Ventura (Argentina)

For the World Congress of Pharmacy and Pharmaceutical Sciences in 2017, 11 grants were awarded to:

Dr Delal Bahjat Al Natour (Jordan)
Mr Uroš Čakar (Serbia)
Ms Maryam Dajani (Jordan)
Mr Flandrie Habyarimana (Rwanda)
Dr Jose Pablo Diaz Madriz (Costa Rica)
Dr Alfonso Pereira (Costa Rica)
Mr Sunil Shrestha (Nepal)
Ms Endang Sulistiyowatiningsih (Indonesia)
Ms Wei Wang (China)
Mr Zhi Yen Wong (Malaysia)
Ms Lusine Yenokyan (Armenia)

FEEDBACK FROM SOME OF THE AWARDEES

MOTIVATED TO PURSUE FURTHER EDUCATION

“My first interaction at the conference was with FIP’s Board of Pharmaceutical Sciences (BPS) and learning about their contribution in supporting the foundation, which was an inspiring moment for me. I also met with my peers from around the world who had received a travel scholarship based on their exceptional research. My keen interests in science-based practice grew exponentially after a short symposium that highlighted the need for precision medicine and the various clinical challenges in implementing it. A key moment for me was at the lecture on education and training in pharmaceutical sciences, which has settled my uncertainty in pursuing further education after PharmD. I have now started working on my PhD in clinical research. I sincerely appreciate the FIP foundation for uniting the different sections of pharmaceutical sciences, and I am honoured to have received this travel scholarship. I thank FIP’s BPS, the U.S. Pharmacopeia, and all the donors for believing in me and enabling me to travel as far as 6,500km through your generous funding. As long as such organisations continue to invest in education and research, I believe we can have many young scientists working on path-breaking research.” — **Sangeetha Iyer, India**



BUILDING RESEARCH ON NEW INSIGHTS

“My current job as a public health pharmacist demands that I engage in regulatory pharmacy, clinical pharmacy, drug supply chain management, and administrative pharmacy practices. The congress programme was structured in a way that enabled me to gain more knowledge in all the aspects of pharmacy practice I engage in. I also learnt about the role of digital health in improving the clinical outcomes for patients with cardiovascular disease as well as the use of vancomycin in clinical settings. Being present at the congress exposed me to research possibilities in my area of specialisation of which I was not aware. My aim is to apply these new insights in the development and evaluation of novel drug delivery systems for the treatment and management of malaria and HIV, which is the central theme of my PhD programme. In addition, I exhibited my abstract poster while answering questions from colleagues interested in knowing more about my research work. This provided me with the opportunity to network with colleagues in the same area of practice. Indeed, I improved my skills in drug discovery, developments and clinical usage. During the congress I joined FIP’s Special Interest Group on Drug Discovery and Design. I plan to collaborate with other colleagues in the group to expand research horizons that will add value to the global populations.” — **Ozioma Onokala, Nigeria**



INSPIRED TO KEEP PHARMACY “GREEN”

“I first heard about the congress from my thesis tutor. Recently, I graduated as a pharmacist in Argentina and this was my first time at a congress of this calibre. I was amazed by the dazzling view of the congress venue and the city in general. The session topics were very educational and it was a pleasure to see the greatness and humility of both the speakers and the chairmen of the sessions. In particular, the presentation by Eeva Teräsalmi on taking responsibility for the environmental impact of medicines was interesting. I would love to be able to dedicate myself to protecting the environment and be part of the “green generation”, as this is also my philosophy in life. A week after participating at the congress, I shared my experience with fellow students at the University of Belgrano. There was much enthusiasm and my peers were motivated to attend an international congress themselves.”

— **Micaela Ventura, Argentina**



SHARING KNOWLEDGE

“As a participant I had a difficult task of choosing between sessions which I wanted to attend. There were a lot of interesting topics and interactive sessions. The scientific programme of the congress was great. I learnt a good deal about pharmacy in different countries, especially in the session about pharmacy in Korea. As a scientist I deal with natural products and, in this session, I had the pleasure of hearing about the regulation and safety of dietary supplements, food and medicines. Also, it was interesting to see that some of the challenges in pharmacy are not country-specific and are experienced by multiple countries, from low- and middle-income to developed countries. My participation at this congress has shown me the possibilities when tradition, technology and innovation are merged into pharmacy. I am eager to share my experience from the FIP world congress with my colleagues in Serbia. I will be doing so by means of writing an article in the magazine *Informator*.” — **Uroš Čakar, Serbia**



EXPANDING PROFESSIONAL NETWORK

“Attending the World Congress of Pharmacy and Pharmaceutical Sciences, getting to know all aspects of pharmacy and connecting with people from around the world has boosted my confidence and increased my interest to establish new professional partnerships. I attended different meetings, including one by FIP’s Young Pharmacists Group, which was very interesting and provided ample networking opportunities. Attending this congress, as a pharmacist in a developing country where we struggle to get recognition for the pharmacy profession, I learnt many things to promote the role of pharmacists in health settings. Upon returning home I am trying to organise more conferences, training and workshops to share my experience and knowledge with Rwandan pharmacists. I would also like to recommend that the FIP foundation sets up a platform for all scholarship recipients to stay in touch and follow each other’s professional and personal development.” — **Flandrie Habyarimana, Rwanda**



DEVELOPING STRATEGIES TO IMPROVE MEDICATION ADHERENCE

“During my participation in this conference, I gained a lot of new knowledge, particularly relating to technological innovation approaches to support pharmacy education and services. The FIP world congress offered great benefits, especially for me as a lecturer involved in designing a pharmacy curriculum in a developing country. In this regard, the 8th Global Deans Forum was a great source of inspiration for me. Another of my interests is in medication adherence. It is a major problem in many countries — including mine (Indonesia) — with increasing prevalence of chronic diseases such as hypertension and diabetes mellitus. The smart pharmacy session at the congress has inspired me to develop new strategies to improve adherence in my community.” — **Endang Sulistiyowatiningsih, Indonesia**



TON HOEK SCHOLARSHIP FOR GLOBAL LEADERSHIP

The foundation is responsible for awarding the Ton Hoek Scholarship for Global Leadership, the objective of which is to permit 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 2017, the scholarship was awarded to Israel Bimpe, president of the International Pharmaceutical Students' Federation (August 2016 to September 2017) and a recent graduate with a bachelor's in pharmacy sciences. Unfortunately, Mr Bimpe was not able to attend the FIP congress in Seoul, Republic of Korea, due to another engagement and he will accept the award during the FIP congress in Glasgow, Scotland.

Mr Bimpe said: "I am grateful to the FIP foundation for having been awarded the 2017 Ton Hoek Scholarship for young leaders. Unfortunately, I was not able to attend the FIP world congress in Seoul, as it collided with my fellowship placement through the Mandela Washington Fellowship for Young African Leaders. However, not being able to attend the congress doesn't deter my commitment to advance pharmacy by serving within FIP, at home in Rwanda or within the International Pharmaceutical Students' Federation. The award rather reinforced my passion to advocate for pharmacy, as well as contributing to the empowerment and development of the pharmaceutical workforce in Rwanda, in Africa and globally."



YOUNG PHARMACISTS GROUP GRANT FOR PROFESSIONAL INNOVATION

Each year 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 2016

The recipient of the 2016 Grant for Professional Innovation was Aniekan Ekpenyong from Nigeria. His proposed research aimed to obtain insights on the current capacity of the workforce with respect to the number of pharmacists, distribution per pharmacy sector and availability of pharmaceutical expertise in Nigeria. Mr Ekpenyong presented his work at the 2017 FIP congress in Seoul, Republic of Korea.

He said: "Policymakers, researchers and organisations such as FIP and the Pharmaceutical Society of Nigeria (PSN) would benefit greatly from this research. The obtained data and the recommendations that were formulated would aid policy makers in decision making, especially in regard to pharmacy workforce, and allow other researchers access to much needed evidence. Additionally, it could be used as an advocacy tool by the PSN."

The next stage is to have the research published so that a wider audience can access it, said Mr Ekpenyong. A request to make use of the data was already made by the pharmacy body in Nigeria, he added.

This research has been submitted for publication in the *Journal of Pharmaceutical Practice*. To find out more about this research, get in touch with Mr Ekpenyong at aniekanpearl@gmail.com.

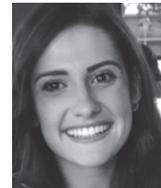
Mr Ekpenyong said: “The congress in South Korea was an interesting one for me. I was exposed to recent trends in pharmaceutical practice from different countries. I learnt a lot, especially about the increasing use of technology in delivering pharmaceutical care. The Young Pharmacists Group session stood out for me as I was inspired by what other young pharmacists were doing in their countries.”

GRANT RECIPIENT 2017

The YPG grant recipient for 2017 is Chelsea Thorn, a PhD student at the University of South Australia. Her proposed project aims to develop a formulation strategy for the glycoside hydrolase alginate lyase and antibiotic gentamicin. It focuses on identifying the capabilities of glyceryl monooleate liquid crystalline gels to deliver alginate lyase and gentamicin to *in vitro Pseudomonas aeruginosa* biofilm models. So far, results have shown that glyceryl monooleate liquid crystalline gels can maintain the activity of alginate lyase and gentamicin against *in vitro P. aeruginosa* biofilms (clinical isolate), compared with a solution treatment. As the liquid crystalline gel of alginate lyase and gentamicin would be intended to be applied to a wound site, the responsive release of alginate lyase and gentamicin is highly attractive. It could further aim to reduce exposure when no infection is present, decreasing the risk of antimicrobial resistance.

Ms Thorn will present her research at the 2018 FIP congress in Glasgow, Scotland.

Looking forward to the congress, Ms Thorn said: “I am very excited for the overall experience of an international conference. However, in addition to presenting my research at the congress, I have other goals to achieve. Firstly, I am eager to learn about clinical pharmacy practice at a global level, as currently, my knowledge is limited to Australia. Secondly, I also hope to connect and engage with other pharmacists and pharmaceutical scientists, which I believe is going to be an invaluable experience that may have impact on my future career post-PhD. Overall, I hope to soak up every opportunity in Glasgow.”



FINANCES

Balance sheet as at 31 December 2017 – After appropriation of the result for 2017 (Expressed in EUR)

	2017	2016
CURRENT ASSETS		
Prepayments and accrued income	1 180	11 245
Cash and bank	221 060	288 294
TOTAL ASSETS	222 240	299 539
CAPITAL AND RESERVES AND LIABILITIES		
Capital and reserves	150 500	142 950
Allocated funds for future projects	62 815	114 387
	213 315	257 337
Current account with FIP	196	30 740
Liabilities grants	3 750	-
Other liabilities	4 979	11 462
TOTAL CURRENT LIABILITIES	8 925	42 202
TOTAL CAPITAL AND RESERVES AND LIABILITIES	222 240	299 539

Statement of income and expenditure for 2017 (Expressed in EUR)

	2017	BUDGET 2017	2016
INCOME			
Global Conference on Education	-	-	42 350
Donations	18 040	45 000	7 317
Development grant FIP	5 000	5 000	5 000
TOTAL INCOME	23 040	50 000	54 667
EXPENSES			
Grants	26 605	35 000	27 669
Allocated costs	30 472	11 500	143 125
Operational costs	10 326	6 000	38 926
TOTAL EXPENSES	67 403	52 500	209 720
OPERATING RESULT	(44 363)	(2 500)	(155 053)
Interest and unrealised change on bonds	341	1 000	1 375
FINANCIAL RESULT	341	1 000	1 375
NET RESULT BEFORE APPROPRIATION	(44 022)	(1 500)	(153 678)
Appropriation of the result, (from)/to:			
Allocated funds	(18 717)	(1 500)	(98 275)
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	(25 305)	-	(55 403)
TOTAL APPROPRIATED	(44 022)	(1 500)	(153 678)

ABOUT THE FIP FOUNDATION

The FIP Foundation for Education and Research was established in 1993 with the objective of promoting 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.

DIRECTORS OF THE FIP FOUNDATION IN 2017 WERE:

Mr John Ware (Australia) — chairman
Mrs Carola van der Hoeff (Netherlands) — executive director
Prof. Giovanni Pauletti (USA)
Ms Ema Paulino (Portugal)
Dr Régis Vaillancourt (Canada)
Mr Nobuo Yamamoto (Japan)
Prof. Kenneth B. Roberts (USA)

WAYS TO DONATE

The foundation has its own website (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.

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





FIP Foundation for Education and Research
Andries Bickerweg 5
2517 JP The Hague
The Netherlands

Email: foundation@fip.org

To make a donation, or to find out more about the foundation, please visit:
www.fipfoundation.org



FIP FOUNDATION FOR EDUCATION AND RESEARCH