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

Thony Björk retired as chairman of the foundation at the beginning of the year and I would like to thank him for his dedication to the International Pharmaceutical Federation (FIP) and the foundation over many years.

I am greatly honoured to have been invited by FIP to assume the role of chairman of the foundation.

We have worked for 12 months on preparing a new set of statutes to give our work stronger guidance and we have employed a philanthropic research organisation — Global Philanthropic — to support this guidance and help us identify resources to re-energise the foundation and enable it to support projects, scholarships and research that will benefit pharmacists and pharmaceutical scientists and the health of the general public.

As we enter a challenging period for the profession, innovation is the key to the future and we need to develop new techniques and skills that will continue to support our role as an integral part of the health care team.

We cannot do this without the help of the International Pharmaceutical Federation (FIP) and you as individuals and members. We need you to be our advocates in identifying areas of opportunity in fundraising and research so that the FIP Foundation for Education and Research can help pharmacists and pharmaceutical scientists and FIP member organisations enjoy a successful future for our profession.

The foundation’s board looks forward to a future where FIP and the foundation can work not only on global projects but also on co-operative FIP and member organisation health care programmes.

It would be remiss of me to close this foreword to the foundation’s annual report without paying tribute to the extremely hard work, input and dedication of Carola van der Hoeff, executive director of the foundation. The board joins me in expressing our appreciation of her work.

I thank all of you who have supported the foundation and look forward to a successful future together.

John Ware
Chairman
FIP Foundation for Education and Research
EDUCATION
The FIP Foundation for Education and Research continues to support FIP Education (FIPEd) activities, including strategic objectives detailed in the FIPEd five-year action plan (2014–2018). One of the plan’s objectives is to bring together leaders in education to discuss current challenges and build solutions.

FIPEd organised an exceptional event that took place in November 2016: the Global Conference on Pharmacy and Pharmaceutical Sciences Education. This gathered pharmacy and pharmaceutical sciences leaders from across the globe in Nanjing, China, to set the future milestones for education and workforce development of pharmacists and pharmaceutical scientists, creating a global vision for transformative pharmacy and pharmaceutical sciences education.

The conference provided a platform for dialogue and established consensus among policymakers, education leaders and regulators on how pharmaceutical workforce competence can be assured through education. Six hundred participants from 47 countries and territories were represented. As a result, the global conference adopted:

- A Global Vision for Workforce and Workforce Development (in the context of education and training)
- A set of 13 Pharmaceutical Workforce Development Goals
- A set of 67 Statements on Pharmacy and Pharmaceutical Sciences Education

The purpose of these documents is to advance education and foster full acceptance of responsibility and accountability for improving global health.

Lucinda Maine, executive vice president and chief executive officer, American Association of Colleges of Pharmacy (AACP), said: “This is a time of profound change in pharmacy practice and science. Without adequate leaders at every level and at every location of practice, the profession will not be able to optimise its contribution to this changing landscape. The global conference is a once-in-a-lifetime experience and FIP is likely the only organisation that could have pulled all the stakeholders that are participating in the conference together and so it was simply the place AACP needed to be and we needed to contribute.”
PICTOGRAM PROJECT

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.

Régis Vaillancourt, pictogram project lead, said: “After a few years of focus on the development and validation of pictograms internationally, and the development of the pictogram software “PictoRx” (launched in 2015), the project is gradually evolving towards the integration of pictograms into information leaflets to support medication counselling and the development of infographics to support medication counselling of specific diseases.”

Collaborative work on the development and validation of pictograms is still ongoing in Brazil, Poland and Singapore.

In 2016, the main focus of the pictograms project has been on increasing patient safety from a health care perspective. As such, a series of research projects aimed at developing medication safety pictograms for health care workers for nine medication safety warnings, identified by experts in medication management, has been conducted. An iterative design process was used to develop the pictograms and included activities such as semiotic analysis, design/redesign and evaluation. Nurses, physicians, pharmacists and students from the Children's Hospital of Eastern Ontario (CHEO) in Ottawa, Canada, listed and drew graphic elements to depict each of the nine safety warnings. Graduate students from the Myron E. Ullman Jr. School of Design at the University of Cincinnati, USA, designed the preliminary pictograms using these graphic elements. International health care providers were invited to participate in a survey to determine their preferred pictogram for each safety warning. Three to five pictograms were developed for each safety warning based on the graphic elements suggested by 52 health care providers from the CHEO. These pictograms were then presented to 58 experts and consensus was reached to identify the best two pictograms for each safety warning. In the international preference survey, 799 participants from 61 countries selected their preferred pictogram. Of these participants, 67% were Canadian and 72% were pharmacists. There was a clear difference in preference between the two pictograms for eight medication safety issues. However, nurses preferred a different pictogram compared with the other participants for the ninth safety issue.

The next steps in the projects are to validate the selected pictograms through a comprehensive assessment before implementation.

“Once implemented, these pictograms may enhance medication safety by reducing medication administration errors,” Dr Vaillancourt said.

PictoRx 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 the indication, dose and route, frequency, side effects and precautions. The latest version of the software is free to download at www.fip.org/pictograms.
PHARMABRIDGE
The foundation further supported 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 2016, 19 people (from Chile, Ethiopia, Ghana, India, Malaysia, Nigeria, Philippines, Romania and Tanzania) were placed for practice exposure (in Canada, Ethiopia, Finland, USA and South Africa). This brings the number of pharmacists placed since 2001 to 118. “I am very grateful for the opportunity to be trained and exposed to cardiothoracic critical care in Tucson, Arizona, USA, under Prof. M. Katz. This exposure has changed my pharmacy practice in Nigeria. I am now a preceptor to pharmacy undergraduates and pharmacists who are doing residency in cardiothoracic critical care,” said Mrs Maureen Nwafor, chief clinical pharmacist, University of Nigeria Teaching Hospital, Enugu, Nigeria.

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 the Philippines. The James L. Winkle College of Pharmacy, Cincinnati, USA, sent some 100 books to the Gondar University School of Pharmacy in Ethiopia. Lexicomp (a developer of clinical information solutions based in the USA) offered 700 copies of the “Drug information handbook for nurses” for further distribution within the Live Well Initiative, an active Nigerian non-governmental organisation set up by a pharmacist. The University of Groningen, The Netherlands, has offered 200 copies of the revised version of the book entitled “Dermatological preparations for the tropics” to FIP for distribution to addresses provided by Pharmabridge.

“Our goal for 2017 is to place at least 12 candidates for practice exposure and to organise Pharmabridge events at the FIP World Congress of Pharmacy and Pharmaceutical Sciences in Seoul. These placements could not have been organised without the generosity of individuals and institutions hosting them, which is duly acknowledged,” said Agathe Wehrli, Pharmabridge founder.
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 World Congress of Pharmacy and Pharmaceutical Sciences, 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 2016, 13 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).

**AWARDEES**

Thirteen grants were awarded in 2016 to:

- Mr Cristan Agaceta (Philippines)
- Mr Ahmad Jawid Ehsan (Afghanistan)
- Ms Ragia Elsayed (Egypt)
- Ms Agnes Gossenheimer (Brazil)
- Ms Djulija Hadzibeti (Montenegro)
- Ms Ismeet Kaur (India)
- Mr Alemayehu Berhane Mekonnen (Ethiopia)
- Mr Arde Nugraha (Indonesia)
- Ms Ijeoma Esther Okafor (Nigeria)
- Ms Belma Pehlivanovi (Bosnia & Herzegovina)
- Mr André Silva (Brazil)
- Ms Su Su (China)
FEEDBACK FROM SOME OF THE Awardees

Focusing on improving health literacy

“I am a clinical pharmacist, and a PhD student in pharmaceutical sciences at the Federal University of Rio Grande do Sul in Porto Alegre, Brazil. My research area is pharmaceutical education, focusing on clinical certification of pharmacist in diabetes. Going to the congress was important because I wanted to learn about pharmacy areas unfamiliar to me, and I wanted to meet professionals from whom I could learn. At the session on health literacy and the role of pharmacists I was able to gain more in depth knowledge and eventually I have been able to introduce this knowledge into my work by developing a line of research on the subject. The pictograms project and clinical certification of pharmacists were well-discussed at the congress.” — Agnes Gossenheimer, Brazil

Gaining a priceless network of contacts in different pharmacy fields

“My goal in attending the FIP congress was to become more informed about research opportunities for young pharmacists, to listen and to learn from leading experts in pharmacy. Not only did I learn about latest news and methods in pharmaceutical sciences, which I applied in my doctoral research, but I also gained international contacts in different areas of pharmacy, and that is priceless. My attendance at the FIP congress was a grand experience, and I would warmly recommend all young pharmacists to take part and to get actively involved. My post-congress aim is to motivate my students and colleagues to become actively involved in FIP and its projects.” — Belma Pehlivanović, Bosnia & Herzegovina

Improving skills to provide better care to patients

“I set out with the aim of gaining knowledge and skills in health literacy, IT solutions, adherence and use of social media in pharmacy. Among other things, I learned how to evaluate the health literacy levels of patients during one of the sessions. I believe these skills will help me provide better care for patients at the hospital I work at in China, where we have approximately 800 outpatients per pharmacist a day. At one of the events I did notice that Chinese pharmacists are under-represented. This might be explained by the late development of the pharmacy profession in China. However, we are now gaining on countries that have mature pharmacy training systems. In future I hope to see more Chinese representation at FIP congresses, be it as speaker, committee member, presenter or participant. My participation at the congress benefited not only me but also my colleagues back home. I will now be able to serve as a conduit of knowledge and promote pharmacists as indispensable in reducing the global burden of disease.” — Su Su, China

Staying up-to-date on developments in the field of pharmacy

“Being a pharmacist, you must be up-to-date on the many research and practice developments in the field of pharmacy as your patients depend on you to provide safe, efficacious care. The FIP congress in Buenos Aires enabled me to connect with thought leaders and content experts, and equipped me with knowledge I took back to my institution to implement necessary change immediately. One of the most impressive things about the FIP congress is the huge number of people with different backgrounds and various cultures who have pharmacy as a common language. It is a must-attend event for pharmacy practitioners, academics, researchers and pharmacy students.” — Ragia Elsayed, Egypt
“Sharing knowledge and experiences

“When I applied to the scholarship I had three main goals: to present results of my thesis, to meet with scientists and talk about pharmaceutical technology, and to gain insight into pharmacy education. I can now say that all of my goals were reached at the congress. The knowledge I have gained during the congress has helped me in building new projects in which the community is closer to the academy. I am trying to form an interprofessional team focused on preventing and solving medicines-related issues. I would like to thank the FIP Foundation for Education and Research for the opportunity of experiencing the congress and allowing me to share my experience. I hope many more young pharmacists will have the opportunity to have the same experience.”

— André Silva, Brazil

TON HOEK SCHOLARSHIP FOR GLOBAL LEADERSHIP

The foundation awards a scholarship to assist young pharmacists or pharmaceutical scientists in travelling to the FIP congress. The objective of the Ton Hoek Scholarship for Global Leadership is to permit the recipient 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 2016, the scholarship was awarded to Mr Bhupendra Poudel, a pharmacy officer of the Nepalese government assigned with inspecting hospital and community pharmacies on issues relating to regulatory non-compliance and misuse of medicines.

Mr Poudel said: “This congress provided me with prospects to contribute to improving pharmaceutical care and facilitate hospital and community pharmacies for disease prevention and long lasting health promotion through patient-centred initiatives. This seems a long journey with hurdles but the challenges ahead for regulators to bring patient-centred care should be sorted out sooner or later. After having learned much at the FIP congress, I pledge that I will work hard to bring fruitful transformation to the profession of pharmacy and reduce the national burden of disease by working on improving standards of practice in hospital and community pharmacies.”

— Bhupendra Poudel, Nepal

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 awardee’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 2015
The recipient of the 2015 Grant for Professional Innovation was Arcelio Benetoli from Brazil. His proposed project was to explore how pharmacists use (or can use) social media in a professional capacity, particularly for patient care, and how patients use social media for health purposes. Mr Benetoli presented his work at the 2016 FIP congress in Buenos Aires, Argentina.

Mr Benetoli said: “The research revealed important findings on how consumers use social media for health-related purposes. We found that social media is extensively used to get medical information and to obtain social and emotional support from others experiencing similar health issues. Consumers felt more empowered and better prepared for clinical consultations. However, they also reported that social media is not an appropriate channel for communications with health care professionals. These findings have complemented our investigation on how pharmacists use social media in a professional capacity, including the delivery of patient care. We believe that with this research we have laid the groundwork for future studies on optimal ways for establishing a professional relationship between pharmacists and consumers, utilising the potential of social media.”

This research has been submitted for publication in the following journals: Journal of Medical Internet Research, Patient Education and Counseling, and Health Expectations.

Mr Benetoli added: “I am grateful to the foundation for the opportunity to attend and present my research findings. My experience at the FIP congress was memorable. The sessions were informative and the audience was engaged. The local staff were extremely friendly and made me feel at home. The cultural presentations during social activities (opening ceremony, closing dinner, etc.) were amazing. Congratulations to FIP for organising a successful congress!”

GRANT RECIPIENT 2016
The YPG grant recipient for 2016 is Aniekan Ekpenyong, a recent graduate currently undergoing a one-year internship at the National Assembly Clinic, Abuja, Nigeria. His proposed research aims to obtain insights on the current capacity of the workforce with respect to number of pharmacists, distribution per pharmacy sector and availability of pharmaceutical expertise in Nigeria.

Mr Ekpenyong said: “Results of the findings and recommendations generated will add to the evidence base on the state of the global pharmacy workforce. Organisations such as the Pharmacists Council of Nigeria, FIP or the Department of Human Resources in Nigeria’s Federal Ministry of Health could benefit from this research by using it as a tool to facilitate national policy planning to address deficiencies in the pharmacy workforce. By addressing this challenge we can improve access to medicines, the responsible use of medicines and overall health outcomes for patients.”

Mr Ekpenyong will present his research at the 2017 FIP congress in Seoul, Republic of Korea.
## FINANCES

**Balance sheet as at 31 December 2016 – After appropriation of the result for 2016 (Expressed in EUR)**

<table>
<thead>
<tr>
<th>CURRENT ASSETS</th>
<th>2016</th>
<th>2015</th>
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<tbody>
<tr>
<td>Prepayments and accrued income</td>
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<td>1,980</td>
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<td>Cash and bank</td>
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<td><strong>TOTAL ASSETS</strong></td>
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<td><strong>430,188</strong></td>
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<tr>
<th>CAPITAL AND RESERVES AND LIABILITIES</th>
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<th>2015</th>
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<tr>
<td>Capital and reserves</td>
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<tr>
<td>Allocated funds for future projects</td>
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<td><strong>TOTAL CURRENT LIABILITIES</strong></td>
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<td><strong>19,173</strong></td>
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<tr>
<th>TOTAL ASSETS</th>
<th>299,539</th>
<th>430,188</th>
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**STATEMENT OF INCOME AND EXPENDITURE FOR 2016**

(Expressed in EUR)

<table>
<thead>
<tr>
<th>INCOME</th>
<th>2016</th>
<th>BUDGET 2016</th>
<th>2015</th>
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<tr>
<td>Global Conference on Education</td>
<td>42,350</td>
<td>-</td>
<td>-</td>
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<td>Donations</td>
<td>7,317</td>
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<tr>
<td>Development grant FIP</td>
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<td><strong>TOTAL INCOME</strong></td>
<td><strong>54,667</strong></td>
<td><strong>52,500</strong></td>
<td><strong>16,778</strong></td>
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<th>EXPENSES</th>
<th>2016</th>
<th>BUDGET 2016</th>
<th>2015</th>
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<tr>
<td>Grants</td>
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<td>Operational costs</td>
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<td><strong>TOTAL EXPENSES</strong></td>
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<td><strong>52,500</strong></td>
<td><strong>140,091</strong></td>
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<th>OPERATING RESULT</th>
<th>2016</th>
<th>BUDGET 2016</th>
<th>2015</th>
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<tr>
<td>Interest and unrealised change on bonds</td>
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<td>1,000</td>
<td>(2,602)</td>
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<tr>
<td><strong>FINANCIAL RESULT</strong></td>
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<td><strong>1,000</strong></td>
<td><strong>2,602</strong></td>
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<th>NET RESULT BEFORE APPROPRIATION</th>
<th>2016</th>
<th>BUDGET 2016</th>
<th>2015</th>
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<tr>
<td>Appropriation of the result, (from)/to:</td>
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<td></td>
<td></td>
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<tr>
<td>Allocated funds</td>
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<td>(32,116)</td>
<td>(32,116)</td>
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<tr>
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<td>(88,595)</td>
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<td><strong>TOTAL APPROPRIATED</strong></td>
<td><strong>(153,678)</strong></td>
<td><strong>1,000</strong></td>
<td><strong>(120,711)</strong></td>
</tr>
</tbody>
</table>
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 2016 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.