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.

It is important to remember that the original purpose of the Foundation was to enable FIP to promote healthy outcomes in a tax-free environment. Having restructured with new statutes, the Foundation can proceed with confidence to a bright future and we are delighted to have some possible programme suggestions from the CEO and president of FIP.

This enables us to move forward and identify programme funding options as well as to progress the ongoing awards programme, which is so ably supported by Mr Lee Vermeulen and the awards sub-committee.

The past year has been particularly difficult for the Foundation. We had tabled a plan to enable the FIP Bureau and the sections to work with the Foundation using the contacts made in 2017 to start up new programmes that would support pharmacy practice and pharmaceutical science globally.

The role and work of bodies such as the FIP Foundation depends a great deal on the ongoing support of its directors and, in our case, they are spread all over the world and respond wonderfully to all requests for input. This is overseen in the head office by Mrs Carola van der Hoeff and Mrs Rachel van Kesteren. Our success is very much due to the support of these two officers.

The Foundation is now also responsible for the Pharmabridge and Pictogram projects. It is difficult to raise corporate contributions for these individual programmes and we look to you, as individual pharmacists and pharmaceutical scientists, to give generously to the Foundation so that we can keep supporting young pharmacists in gaining new skills, and international experience and understanding, in order to advance our profession.

The interest in the scholarship programmes of the FIP Foundation is increasing enormously. Unfortunately, we cannot support all requests, therefore, we would like to ask you to consider making a donation along with your annual FIP membership fee or congress registration, or by directly contacting Mrs Carola van der Hoeff, CEO of the FIP Foundation.

In 2019 there were 239 applications for congress travel scholarships, and we granted the Ton Hoek Scholarship to Prof. Margarita M. Gutierrez, from the Philippines.

I would like to thank the Board members of the FIP Foundation for their help and support during 2019, as well as thanking FIP President Mr Dominique Jordan, FIP CEO Dr Catherine Duggan, and all the FIP staff for their support and co-operation with the Foundation.

Mr John Ware  
Chairman  
FIP Foundation for Education and Research
PICTOGRAM PROJECT:
COMMUNICATING MEDICATION INSTRUCTIONS TO PEOPLE WITH NO COMMON LANGUAGE

The Foundation has continued to support the FIP pictogram project, designed to make medicines administration in hospitals safer. 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 took over this project in 2004, which was created in 1983 by a small group of pharmacists.

In 2019, Régis Vaillancourt, FIP pictogram project lead, continued the work started in 2018 of creating, testing and validating medication safety pictograms to be used as labels to accompany high risk medicines in a hospital setting.

He started testing these three pictograms that already met the International Standards Organization (ISO 91686) criteria in a simulation study to verify whether they help nurses make safer choices when administering medicines.

Initial results have been promising, but due to the COVID-19 pandemic plan in the beginning of 2020, the study has been put on hold.

The international validation study of pharmaceutical pictograms among older adults in Singapore was successful and the results were to be presented at the 7th FIP Pharmaceutical Sciences World Congress, that was planned for May 2020 in Montreal, Canada, but cancelled due to the pandemic. “In Singapore, prescription medication labels are usually in English, but many older Singaporeans cannot read English. This is a barrier to accessing medication information, and this study showed that nearly half of the images tested showed good comprehension. Pictograms not validated will be modified based on participant feedback and retested in a follow-up study in Singapore,” Dr Vaillancourt explained.

A similar project started in Malta for low-health-literate elderly patients, thanks to the interest from local clinicians and policy makers in the country. The results were supposed to be presented at the International Social Pharmacy Workshop in Sydney, Australia, in July 2020 but again COVID-19 has postponed this opportunity.

![Pictograms](image)
PICTOGRAMS TO REPRESENT PAIN

Dr Vaillancourt has started working in collaboration with the University of Cincinnati, USA, on developing pictograms to represent the sensory and affective qualities of pain. “This work is timely and builds on the validated work from the Short Form of the McGill Pain Questionnaire to bring pictograms to convey the 22 different qualities of neuropathic and non-neuropathic pain,” he said.

“The above images were found to meet the ISO standards for comprehensibility, but larger sample sizes are needed to finalise the list. The third and final round of comprehensibility testing for this project will be happening in 2020, and FIP members will be able to participate via the online survey that will be securely sent out. Stay tuned,” he added.

PICTORX SOFTWARE UPDATED

During 2019, the other major project was the redesign of the PictoRx software that allows pharmacists and other healthcare providers to create illustrated medication labels, calendars and storyboards from validated pictograms. “The redesign is nearly complete. The updated and improved software has been renamed Glyph, now boasting slick and user-friendly desktop and smartphone platforms,” Dr Vaillancourt explained.

“With this exciting redesign, patients can log in and export detailed and easy-to-follow instruction sheets, prescribers can send patients their prescription data via a link or five digit code, patients can set reminders/push notifications on their devices for all medication instructions, and [there are] many, many more improvements,” he added.

Glyph software is currently being tested at the Children’s Hospital of Eastern Ontario, Canada, and will be freely available for mobile devices in 2020 for prescribers and patients.
LINKING PHARMACISTS FROM LOW-INCOME AND DEVELOPING COUNTRIES

The FIP Foundation continued supporting the Pharmabridge programme, which is aimed at strengthening pharmacy services and pharmacy education in low-income and developing countries (LIDCs). It was founded in 1999 by Agathe Wehrli with the main objective of sharing knowledge and experience through the following 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.

**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 2019, 16 candidates — 13 academic pharmacists and three hospital pharmacists — were placed in five different countries. Candidates from Ghana (2), India (7), Nepal (1), Nigeria (4), Pakistan (1) and Philippines (1) were placed for practice exposure in Australia, Canada, Croatia, India and USA. The total number of all Pharmabridge trainees placed between 2001 and 2019 is 176.

Three hospital pharmacists participated in the Hospital Pharmacy Section and Pharmabridge pilot project to improve the promotion of the Basel Statements. These pharmacists travelled from Nigeria, Pakistan and Philippines and were placed in the USA and in Australia.

“Thanks to my Pharmabridge experience, I introduced a new method of examining the students in their clinical practice exam. For the first time we conducted the OSCE (Objective Structured Clinical Examination) for pharmacy students here. I hope you can appreciate the impact you all made not only in my life but here on the lives of the faculty and students of pharmacy, Delta State University Abraka. Once again thanks for the impact on my profession and on the training I can give future pharmacists. You made our first OSCE possible,” said Rita Akonoghrere, from Nigeria.

The responses by hosts and trainees to the Pharmabridge Impact Survey held in 2019 showed how much the exchange programme is valued and how it impacts pharmacy practice and education locally. “The survey results confirm the individual emails I receive long-after someone has done Pharmabridge training, often letting me know what new initiatives the past trainees have undertaken — from updating courses, to implementing new policies, to developing new roles for pharmacists in various healthcare settings. It is so heartening to know that the efforts made by Pharmabridge hosts transform into tangible outcomes,” said Agathe Wehrli, Pharmabridge founder.
Thirteen grants were awarded by the FIP Foundation during 2019, making it possible for selected pharmacists and pharmaceutical scientists from eleven different countries to participate at FIP’s Abu Dhabi Congress. These grants enable participants to develop and/or help others to develop skills and knowledge in line with the objectives of the Foundation.

GRANT RECIPIENTS

**Travel grants were awarded to:**
Mr Asuakwe Achaw Ayele (Ethiopia)
Mr Ramsés Alfaro Mora (Costa Rica)
Ms Aline de Fátima Bonetti (Brazil)
Mr Mark Wing Loong Cheong (Malaysia)
Ms Hind Ghadeyyeh (Jordan)
Ms Razan H. Haddad (Jordan)
Mr Garba Mohammed Khalid (Nigeria)
Ms Raghad Kurdy (Jordan)
Ms Jyothsna Manikkath (India)
Ms Juljana Naco (Albania)
Ms Fitria Nur Hidayah (Indonesia)

**Young Pharmacists Group Grant for Professional Innovation:**
Mr Shepard Nqobile Mhlaba (Zimbabwe)

**Ton Hoek Scholarship for Young Leaders:**
Ms Margarita Gutierrez (Philippines)

*Meeting between Foundation directors and some award recipients at the FIP Congress 2019 in Abu Dhabi, UAE*
FEEDBACK FROM SOME OF THE Awardees

USING THE KNOWLEDGE ACQUIRED

“Participation in the 79th FIP World Congress of Pharmacy and Pharmaceutical Sciences allowed me to know more about what is happening in pharmacy practice around the world. Participating was very rewarding. My institution will start a new project using the knowledge acquired at the congress. We will begin to teach green pharmacy and the environmental implications of good pharmacy practice to protect the environment. We hope to achieve good results that could be revealed in the future, at a FIP congress.”
— Ramsés Alfaro Mora (Costa Rica)

RELATIONSHIPS AS IMPORTANT AS EDUCATIONAL INSIGHTS

“Attending the congress allowed me to identify experts and key opinion leaders among pharmacists on topics that held great interest to me, for example, digital transformation in pharmacy, and the transformation of pharmacies to deliver patient-centred services across different countries. It was a fascinating experience that left me thinking about how pharmacists are one great community, striving to deliver care across varied regions and challenges. All these relationships and friendships that I’ve made are as important to me as the educational insights I gained during the congress. I believe that in these times of global uncertainty and tension, these ties between people across nations will keep us moving in the right direction.”
— Mark Wing Loong Cheong (Malaysia)

NEW IDEAS FOR A RESEARCH PROJECT

“I am very glad and thankful for this scholarship to attend and participate in the FIP world congress in Abu Dhabi. It was a very fruitful, wonderful and successful opportunity. It was my first year at a FIP congress and I attended daily as many sessions as I could. Attending this congress gave me a wider view in recent research studies in pharmacy which will help me in initiating new ideas for my research projects and collaborating with other researchers. . . . I believe that becoming an active member of the FIP Foundation for Education and Research can represent the best way in acknowledging its important role in pharmacy in our region and all over the world.”
— Razan H. Haddad (Jordan)
GAINING NETWORKS
“I am overwhelmed by this unique opportunity. It enables me to explore and learn more about pharmacy practice on a global level. Indeed, through the network I have gained, I met a professor who offered me a post-doctoral position in his laboratory, which I will consider in the future after my PhD. I'll disseminate the knowledge and network acquired to my colleagues both at home in Nigeria and in Milan, Italy, where I am pursuing my PhD. I quickly scheduled after the congress a lab meeting in my university to give an update on the account of my experience attending the FIP congress 2019; it was a good opportunity to tell colleagues more about recent developments in pharmacy practice, education and research. I also discussed these advances in pharmacy with my students. Once again, thank you FIP Foundation for Education and Research and long live FIP.”
— Garba Mohammed Khalid (Nigeria)

NETWORKING WITH RESEARCHERS
“I had the opportunity to present my research poster on the development of a novel nanotechnology-based formulation of an antipsychotic agent. The poster sessions provided me with the opportunity to network with researchers working on similar areas and with anyone who stopped by to listen. I was able to connect with industry personnel, with whose valuable feedback I hope to go deeper in my research in this domain. This has also inspired me to go further in my career, with a greater focus on research that directly benefits pharmacy practice.”
— Jyothsna Manikkath (India)

INSPIRED TO CONTRIBUTE TO THE COMMUNITY
“Receiving the FIP Foundation scholarship has motivated and inspired me to help others and contribute to the community. I feel that Albanian pharmacists have a lot to offer and receive, therefore I feel encouraged to cooperate more actively. I want to further develop pharmacy in my homeland and encourage many other young people to actively be part of the Pharma-world. I am very enthusiastic to write and talk to every pharmacist I know and let them know or just encourage them to visit the FIP website and read about membership benefits, since FIP is the real way of exchanging experiences and is the best learning platform for a pharmacist. Thank you once again for the opportunity and your support.”
— Juljana Naco (Albania)
TONE HOEK SCHOLARSHIP FOR YOUNG LEADERS

The Foundation is responsible for awarding the Ton Hoek Scholarship for Young Leaders, 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.

The award is named after FIP’s former CEO Ton Hoek (1955–2012). In 2019, the scholarship was awarded to Margarita Gutierrez (Philippines), a young pharmacist who was doing her (PhD) in social and administrative pharmacy studies at Chulalongkorn University in Bangkok, Thailand.

Gutierrez said: “Being this year’s Ton Hoek Scholarship recipient, I was given the privilege to attend and participate in some of the remarkable events in the congress. I met FIP president Dominique Jordan as well as John Ware, FIP Foundation chairman, and the Foundation board, who I personally thanked for this wonderful opportunity. The opening ceremony, where I officially received my award, was definitely one of the most unforgettable moments in my career. . . . This short but memorable event truly gave me motivation and inspiration to strive harder and overcome trials in my chosen career path in pharmacy.

“Participating at the congress gave me an enhanced view of the broad structure of FIP. I took on the challenge to figure out where my capabilities would fit best and decided to participate in the activities of the FIP Young Pharmacists Group (YPG), which connects young pharmacy professionals all over the world and fosters leadership within each of the eight sections focusing on pharmacy practice and nine special interest groups regarding pharmaceutical science. My participation in FIP YPG activities gave me the chance to meet the YPG Steering Committee to whom I expressed my willingness to assist in their cause.”
YOUNG PHARMACISTS GROUP GRANT FOR PROFESSIONAL INNOVATION

The FIP 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 2019

The recipient of the 2019 YPG Professional Innovation Grant was Shepard Nqobile Mhlaba, a community pharmacist in Harare, Zimbabwe.

The purpose of his study is to design an online digital platform that will help pharmacists to order and manage stock, and to predict future consumption of medicines, analysing the impact on business performance in community pharmacies. “Thanks to this system, pharmacists could collect the data needed to make informed decisions that will ultimately improve pharmaceutical services delivery,” Mr Mhlaba said.

“In most developing countries, such as Zimbabwe, there is an increase of medicine shortages in both private and public practices made worse by significant quantities of expired stock. Therefore, there is a need to measure performance indicators such as medicines availability and expiry of medicines to determine constraints, and to set up efficient supply chain management systems to improve performance of community pharmacies. Poor supply chain management in community pharmacies is responsible for high patient turnover without getting their medication, frequent out of stocks, overstocking and expiry of essential medicines,” he explained.

The project will be conducted in four phases, from a preliminary survey to the analysis of data to determine the impact. The aim will be improving the access and availability of medicines, and reducing costs for disposal of expired medicines. “Furthermore, when patients have access to their medicines there is general improvement in chronic care management, quality of life of the patient, better prognosis to disease condition, and reduced hospital costs and hospital readmissions,” he added.
GRANT RECIPIENT 2018

The recipient of 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. Collins presented his research at the 2019 FIP congress in Abu Dhabi, United Arab Emirates, and shared his experience in a Young Pharmacists Group webinar.

His project aimed to develop and test a novel method to explore the presence of implicit (unconscious) racial bias in practising community pharmacists. Implicit bias is a form of bias towards an individual or group without conscious execution. To date, there is no research exploring this phenomenon in practising pharmacists. A novel method of audio-recorded covert simulated patient visits to pharmacies combined with interviews with the actors was tested in the project. Actors of different races were employed to explore if they were treated differently.

Preliminary results showed the method was feasible and indicated that there were some signals of the presence of implicit bias. Future work of a larger scale is needed to confirm these results and explore the possibility of other biases present in pharmacists. Through identifying these biases, pharmacists can work towards addressing them and subsequently improving equity in care. A manuscript of the study was under peer review for publication in a scientific journal at the beginning of 2020.

The completion of this project would not have been possible without the support from the Foundation, and this opportunity has unlocked the potential for further research in this area.

Collins said: “Attending the congress in Abu Dhabi was a terrific opportunity. It was great to engage with pharmacists from all over the world and from a diverse practice background with various experiences. The educational sessions, social events, and networking opportunities all contribute to having a wonderful experience. Before attending the congress last year, I was hoping to spark some interest in the area of implicit bias with delegates and consequently I have been fortunate enough to develop some potential for future collaborations as a result of attending the congress and sharing my findings from the project. I must express my sincere thanks to the Foundation for supporting my attendance at the 2019 congress in Abu Dhabi.”
## FINANCES

**Balance sheet as at 31 December 2019 – After appropriation of the result for 2019**  
(Expressed in EUR)

<table>
<thead>
<tr>
<th>CURRENT ASSETS</th>
<th>2019</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prepayments and accrued income</td>
<td>1</td>
<td>500</td>
</tr>
<tr>
<td>Current account with FIP</td>
<td></td>
<td>5,222</td>
</tr>
<tr>
<td>Cash and bank</td>
<td>1</td>
<td>160,362</td>
</tr>
<tr>
<td><strong>TOTAL ASSETS</strong></td>
<td>166,084</td>
<td>187,815</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CAPITAL AND RESERVES AND LIABILITIES</th>
<th>2019</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capital and reserves</td>
<td>2</td>
<td>112,785</td>
</tr>
<tr>
<td>Allocated funds for future projects</td>
<td>2</td>
<td>49,356</td>
</tr>
<tr>
<td><strong>TOTAL CURRENT LIABILITIES</strong></td>
<td>162,141</td>
<td>179,982</td>
</tr>
</tbody>
</table>

| Liabilities grants                  | 3      | 568    | 1,000  |
| Other liabilities                   | 3      | 3,375  | 6,833  |
| **TOTAL CAPITAL AND RESERVES AND LIABILITIES**| 166,084| 187,815|

## Statement of income and expenditure for 2019 (Expressed in EUR)

<table>
<thead>
<tr>
<th>INCOME</th>
<th>2019</th>
<th>BUDGET 2019</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Donations</td>
<td>8,547</td>
<td>35,500</td>
<td>25,107</td>
</tr>
<tr>
<td>Development Grant from FIP</td>
<td>5,000</td>
<td>5,000</td>
<td>5,000</td>
</tr>
<tr>
<td><strong>TOTAL INCOME</strong></td>
<td>13,547</td>
<td>40,500</td>
<td>30,107</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>EXPENSES</th>
<th>2019</th>
<th>BUDGET 2019</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grants</td>
<td>14,468</td>
<td>14,500</td>
<td>20,750</td>
</tr>
<tr>
<td>Allocated costs</td>
<td>10,186</td>
<td>7,500</td>
<td>28,830</td>
</tr>
<tr>
<td>Operational costs</td>
<td>6,769</td>
<td>5,000</td>
<td>13,939</td>
</tr>
<tr>
<td><strong>TOTAL EXPENSES</strong></td>
<td>31,423</td>
<td>27,000</td>
<td>63,519</td>
</tr>
</tbody>
</table>

| OPERATING RESULT                      | (17,876) | 13,500      | (33,412)|
| FINANCIAL RESULT                      | 35       | 1,000       | 79     |
| **NET RESULT BEFORE APPROPRIATION**   | (17,841) | 14,500      | (33,333)|

<table>
<thead>
<tr>
<th>Appropriation of the result, (from)/to:</th>
<th>2019</th>
<th>BUDGET 2019</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Allocated Funds</td>
<td>(2,936)</td>
<td>(1,500)</td>
<td>(10,523)</td>
</tr>
<tr>
<td>FIP Foundation for Education and research Capital</td>
<td>(24,905)</td>
<td>16,000</td>
<td>(22,810)</td>
</tr>
<tr>
<td><strong>TOTAL APPROPRIATED</strong></td>
<td>(27,841)</td>
<td>14,500</td>
<td>(33,333)</td>
</tr>
</tbody>
</table>
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 2019 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)
- **Prof. Meindert Danhof** (Netherlands)
- **Prof. Jenelle Sobotka** (USA)
- **Prof. Lee Vermeulen** (USA)
- **Dr Nobuo Yamamoto** (Japan)

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