

Faculty of Science and Engineering

Profile report:

- Discipline: Interprofessional education in pharmacy
- Level: Tenure-track assistant professor with education profile
- Fte: 1,0 fte

1. Scientific discipline

The discipline interprofessional education in pharmacy aims to prepare students to enter the health workforce with the essential competences of teamwork and collaboration. This is needed in an increasingly complex healthcare system of an ageing society with limited financial resources where health professionals need to collaborate with each other to accomplish good patient care. The World Health Organisation has described interprofessional education as two or more professionals who learn about, from and with each other to enable effective collaboration and improve health outcomes. Universities have been challenged to change from uniprofessional to interprofessional education in their curricula of health professionals. The discipline identifies the mechanisms that shape successful collaborative teamwork locally, embedded in a particular health system, as well as on a global level. Such mechanisms include effective communication, a clear understanding of roles and team dynamics, an ability to effectively resolve conflict, and shared leadership. Interprofessional education is a foundation for pharmacy student in becoming pharmacists who can act as an integrated part of the healthcare team.

With this position we aim to re-align and develop the interprofessional education learning line within the bachelor and master pharmacy and to a lesser extent the research master Medical Pharmaceutical Sciences taught in the educational cluster Pharmacy. The candidate will join existing research lines within the unit GRIP-PTEE with a strong emphasis on pharmacotherapy, pharmacy health services research and clinical pharmacy.

2. Vacancy

This position is opened by the Board of the Faculty (PT/gl/22/00181) and will be embedded in the Groningen Research Institute of Pharmacy, basic unit Pharmacotherapy, -Epidemiology & -Economics (PTEE). The criteria and conditions pertaining to the position are described in the document 'Assistant professor with an education profile'.

3. Selection committee (BAC)

- Prof dr Gerrit Poelarends (Director GRIP, chair)
- Prof dr Eelko Hak (Director Education Cluster Pharmacy)
- Prof dr Katja Taxis (Programme Director, Master Pharmacy)
- Prof dr Jos Kosterink, professor of hospital and clinical pharmacy UMCG/GRIP
- Prof dr Aukje Mantel-Teeuwisse, professor of pharmacy and global health, UU
- Prof dr Evelyn Finnema, professor of nursing science and education, UMCG (tbc)
- Studentlid: Evelien Dijkstra (aangevraagd)

Advisors: Friso Salverda (HR); Drs Edgard Weening (lecturer pharmacotherapy/team leader)

4. Area of expertise

Interprofessional education is a pedagogical approach to prepare pharmacy students to become professionals within the interprofessional healthcare team. This recognises the changing role and position of Dutch pharmacists who increasingly collaborate with (primary care) prescribers such as general practitioners and medical specialists. Also, pharmacists are (co)-responsible for the patient's treatment as laid down in the Act of Agreement on Medical Treatment (Wet op de Geneeskundige Behandelings-overeenkomst; WGBO). In the (near) future, pharmacists are also expected to take up more tasks and extend their role further in areas like prevention and lifestyle modification, for example vaccinating patients. Therefore, interprofessional education needs to be incorporated into pharmacy education and training applying innovative and effective teaching methods.

Competencies outlined in the current framework for the bachelor and master curriculum in pharmacy at the RUG include pharmaceutical expertise, communication, collaboration, health advocacy, leadership and professionalism. To achieve the required level of competency, next to university-based theoretical and practical courses, like simulation of pharmacy practice, our curriculum includes internships in community and hospital pharmacy practice. Internships are hosted by pharmacy staff in practice and organized and supervised by university staff. Those courses provide an environment for experiential learning, i.e. simply put, "learning by doing". In the clinical environment of a community or hospital pharmacy, students obtain those competences by acquiring knowledge and training skills such as clinical reasoning, i.e. learning to choose the best treatment for a patient by weighing all important aspects, reviewing and adjusting medication and treatment, communicating with patients and other health care professionals (interprofessional collaboration) and reflecting on their professional attitude.

Expertise in this area is inherently interdisciplinary and collaborative, and requires familiarity with state-of-the-art teaching and assessment methods, as well as a solid understanding of professional roles and the Dutch and international health care system. Within GRIP, elements of interprofessional education are covered in various groups with the main unit being Pharmacotherapy, -Epidemiology and -Economics (precision drug therapy, pharmacy health services research and clinical pharmacy research); Pharmaceutical Technology and Biopharmacy (product care) and Pharmaceutical Analysis (individualized pharmacotherapy). While sufficient expertise on specific areas is certainly available in current scientific staff, a more overarching perspective on the interprofessional education for future bachelors and masters with a pharmacy degree is lacking. This requires dedicated attention from a scientist with a solid background in interprofessional education as well as in depth familiarity with the needs, abilities and interests of the typical pharmacy student. Education should be geared towards the requirements of future employers and research areas. In order to prepare our students for the increasing complexity of health care in an ageing society, a foundation in interprofessional collaboration is required. The involvement of interprofessional education combined with subject-matter expertise in the teaching programmes is directly needed to realize these ambitions, and to create coherence between the basic topics in pharmacy and the competency-based training in applying the knowledge in patient care.

In addition, expertise is needed to provide advanced-level education for interested students. All of these initiatives require a high commitment to education, educational

innovation and didactic skill development, since systematically integrating interprofessional education within GRIP depends on a deliberate implementation strategy.

5. Embedding: institute (and expertise group)

The GRIP in Groningen is positioned within the FSE and physically located within the University Medical Centre Groningen (UMCG) of the Faculty of Medical Sciences (FMS); hence, in an ideal position to benefit from co-operations between both faculties.

Together with Medical Sciences, GRIP participates within the Research Institute GUIDE (Groningen University Institute for Drug Exploration) with this vacancy foreseen in participation in both.

Research at the GRIP is multidisciplinary. It bridges clinical, economical and biomedical sciences on the one side and chemistry, biology, physics and mathematics (statistics) on the other side. The interaction between the pharmaceutical sciences with these fundamental and clinical sciences offers excellent opportunities for cutting-edge research.

GRIP consists of the following research groups (with their chairpersons):

- Analytical Biochemistry (Prof dr.P. Horvatovich)
- Drug Design (Prof dr. A. Dömling)
- Molecular Pharmacology (Prof dr. M. Schmidt)
- Pharmaceutical Analysis (Prof dr. E.M.J. Verpoorte)
- Chemical and Pharmaceutical Biology (Prof dr. W.J. Quax)
- Pharmaceutical Technology & Biopharmacy (Prof dr. H.W. Frijlink)
- Nanomedicine & Drug targeting (Prof dr. K. Poelstra)
- PharmacoTherapy, -Epidemiology & -Economics (Prof dr. E. Hak)

With this vacancy GRIPs ambition is to further build on the scientific knowledge generated by the preclinical research groups (e.g. Molecular Pharmacology, Analytical Biochemistry) and clinical research groups (e.g., Pharmaceutical Technology & Biopharmacy, PharmacoTherapy, -Epidemiology & -Economics) to expand the trial and research using real-world data including pharmacy health services research, making use of our large clinical and pharmacy networks to gain insights into how to improve patient care by interprofessional education in real-life settings.

The candidate will be embedded in the GRIP research group PharmacoTherapy, -Epidemiology & -Economics (PTEE). PTEE also participates in GUIDE where the unit PTEE cooperates within the programme of PEGET and the departments of Epidemiology, Clinical Pharmacy and Pharmacology from the UMCG.

The unit strives to innovate by deriving scientific evidence on personalization of medications, which can only be advanced by learning how this knowledge can be translated in the real-life setting, i.e. applied in practice. Pharmacists have an essential role in medication safety in practice, but need to fulfil this role in collaboration with other health professionals by being a member of the health care team. To this aim large networks on pharmacy health services research exist.

6. Local and (inter)national position

In The Netherlands, education and research in the broader area of interprofessional education is mainly carried out at the Leiden University Medical Center, which hosts the master of pharmacy education, the department of Pharmacy of the University Utrecht (UU) and the GRIP institute of the University Groningen. Many aligning disciplines such as pharmacy health services research, research into communication or research into personalized medicine are well established. To create a position with a focus on interprofessional education will be fairly new in the Dutch landscape. In Groningen, interprofessional education is addressed by the disciplines Pharmacoeconomics, Clinical Pharmacy and Pharmacy Health Services Research. The research is thus embedded in a clinical field and real-life setting. Therapeutic areas of specific attention are Diabetes, Cardiovascular, Respiratory, Oncology and Psychiatric diseases. Research collaborations exist with Clinical Pharmacology & Pharmacy (UMCG), RGOC (regional specialized mental healthcare (UMCG), Netherlands Institute for Health Services Research - NIVEL, Dutch Pharmacovigilance Centre LAREB,

Internationally, only few Western countries (e.g. USA, UK, Canada) have started integrating interprofessional education systematically and on a higher level into teaching and actual pharmaceutical practice. The strong networks with health professionals in the region, such as the academic network of pharmacies (ANNA) allow to test innovations in pharmacy practice. Internationally the European Drug Utilization Research Group (EuroDURG), Pharmaceutical Care Network Europe (PCNE) and the European Society of Clinical Pharmacy (ESCP) are other relevant large professional networks enabling the conduct of innovative research.

7. Expected contributions to teaching

The teaching profile of the new position is focused on interprofessional education in pharmacy. The staff member will focus on the internships in the master of pharmacy. Internships comprise a total of 40 ECTS, nearly 25% of the curriculum of the current master of pharmacy. It will be important to create better links between the current university-based taught theoretical and practical courses and the internships. Furthermore, it is important to create better links amongst the different internships. This may also involve adapting the current length of the individual internship courses and their spread across the 3-year master program to create a sustainable program. On the one hand this should take into account important aspects such as the students being sufficiently involved in direct patient care in different therapeutic areas including exposure to complex cases, learning how to care for patients across the different health care sectors, the increase in the use of digital health, the need for sustainability (e.g. avoiding wastage of medicines). On the other hand, a number of practical aspects are also important such as the availability of sufficient internship places of high quality in practice.

The new staff member should strengthen the collaboration with the pharmacists hosting the internships by offering more feedback to them in coaching and assessing pharmacy students during internships. Innovative and efficient assessment methods to be used for internships are warranted to be developed and implemented. All of these activities should include elements of interprofessional education. Interprofessional education also needs to be incorporated throughout the curriculum of the master of pharmacy. This

means that existing interprofessional education with medical students should be strengthened and collaboration with allied health professionals like nurses, nurse-specialists, physiotherapists, dieticians etc should be established. Those activities should increase the level to which students are exposed to patients from different therapeutic areas and clinical complexity. The activities should also lead to a specific learning line on interprofessional education for the master program.

It is envisaged that the new member of staff will focus on the master program, but he/she should also be involved in teaching in courses during the bachelor of pharmacy to ensure that relevant knowledge, skills and attitudes are addressed at a basic level in the bachelor of pharmacy. The new member of staff will support current teachers, for example teachers involved in the internships with their teaching load. He/she will incorporate innovative teaching elements, technologies and communication strategies in close collaboration with professors by special appointment (profs Liset van Dijk, Jos Kosterink, Eugene van Puijenbroek, Eric van Roon and Frank Jansman). The new staff member will also be closely collaborating with the current SSE teaching staff who have ample experience with experiential learning

A major opportunity for a training setting is the newly build Skillslab in the planned Educational Building at A. Deusinglaan to function from 2023 on. In this Skillslab special rooms are foreseen to mimic pharmacy practice, primary care practice and hospital practice. Innovative teaching can be developed including virtual reality, robots and digital communication to mimic the different care settings. Other excellent opportunities for collaboration comprise the universities' participation in the Academic Network of Pharmacists in the North of the Netherlands (ANNA) which has recently been established and the long-standing excellent collaboration with the department of clinical pharmacy and pharmacology of the UMCG which includes the hospital pharmacy and the outpatient clinic on polypharmacy. Further, the new staff member will develop best practices, and transfer this knowledge to others (Teaching of Teachers) In this respect, collaboration with other Dutch and international universities offering relevant courses should also be sought.

8. Expected contributions to research

The assistant professor is expected to join and contribute to existing research within GRIP-PTEE applied to a relevant field of interprofessional education such as pharmacy health services research, personalized medicine and pharmacotherapy (depending on the candidate's background). Second, the candidate is expected to support efforts in the field of interprofessional education within the institute GRIP by establishing research collaborations with existing groups. Finally, the candidate is expected to contribute to the supervision of PhD students, preferably supported by personal research funding and/or through collaborative/consortium grants.

9. Expected contributions to the organization

The candidate is expected to have an active interest and to provide a positive contribution to the management and organizational tasks of the institute. At the level of FSE, the candidate will contribute to the organization of the faculty, for example by participating in working groups and committees in the area of education. The candidate will participate in relevant national and international organizations.

