

## HIV ADVANCED (YEAR 2) PHARMACY RESIDENCY

### PROGRAM GUIDELINES

**TYPE OF PROGRAM:** HIV Advanced (Year 2) Pharmacy Residency

**NUMBER OF RESIDENTS:** One (1)

- PROGRAM DESCRIPTION:** The residency is a year 2 program to be undertaken following completion of an accredited CPRB Year 1/ACCP PGY1 residency program. It includes rotations in various aspects of HIV pharmacy practice, with an emphasis on ambulatory care. There is exposure to both ambulatory sites at Toronto General Hospital (TGH) and at McGill University Health Centre (MUHC).
- PURPOSE:** The purpose of the Year 2 Residency is to prepare graduates for successful careers in advanced HIV pharmacy practice. This in essence will accelerate the professional development of the pharmacist by familiarizing her/ him with all elements of HIV pharmacy practice with the goal of being able to function as an advanced practitioner in this field by the completion of the program.
- STARTING DATE:** June to September of each year (individualized for each resident)
- PROGRAM OUTLINE:** The residency program lasts for twelve consecutive months (52 weeks). The program will include training in all areas of HIV pharmacy practice and research. The time allocated to each rotation is as follows:

| Rotation                | Activities                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Length                                                            |
|-------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| Orientation             | General orientation to the residency program and the pharmacy department including training on the UHN EPR computer system. Special orientation visits to other institutions allied to pharmacy and the understanding of the liaison between these different institutions and the profession may also be arranged for the resident.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 1 week (2-3 days orientation / 2-3 days project time)             |
| Ambulatory HIV Practice | Ten weeks will be spent at the Chronic Viral Illness Service, McGill University Health Centre, and 10 weeks at the Immunodeficiency Clinic, Toronto General Hospital. The resident will acquire knowledge of the principles, strategies, and protocols for treating HIV infection and opportunistic infections in an ambulatory setting. The resident will demonstrate an understanding and appreciation of drug-related issues commonly encountered in the management of patients infected with HIV. The resident will be able to develop strategies to manage patients with evolving medical conditions and complex drug-related issues on an ongoing basis. The resident will also have teaching responsibilities for Year 1 hospital residents and Pharm.D. candidates doing elective HIV ambulatory rotations. | 20 weeks<br>(2 x 5 week blocks at TGH, 2 x 5 week blocks at MUHC) |
| Community Pharmacy      | Understand the operations of an accredited HIV clinic pharmacy (The Clinic Pharmacy, Toronto General Hospital). Develop skills in the clinical aspects of a retail pharmacy.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 2 weeks                                                           |

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| Inpatient services                              | The resident will spend 5 weeks at Casey House, Toronto. The resident will participate in patient care activities: medication histories; identifying, preventing and resolving drug-related problems; developing and implementing a pharmacy care plan; discharge patient counseling; providing drug information and pharmacokinetic services. Additional activities may include: conducting in-services to nurses and the medical staff when required; attending and participating in daily housestaff walk rounds and subspecialty rounds; and applying evidence-based medicine. | 5 weeks                        |
| Therapeutic Drug Monitoring                     | This rotation is with the Quebec Antiretroviral Therapeutic Drug Monitoring Program, McGill University Health Centre. The resident will assist in interpreting and validating TDM results and providing advice to physicians. Other activities include: development of dose adjustment algorithms, literature review, TDM-related presentations to health care professionals.                                                                                                                                                                                                      | 5 weeks                        |
| Geriatrics                                      | Chronic Viral Illness Service, McGill University Health Centre. The resident will provide pharmaceutical care to the geriatric population ( $\geq 65$ years old), including managing polypharmacy, deprescribing, multiple comorbidities, and drug-drug interactions between anti-retrovirals and medications commonly prescribed for geriatric conditions.                                                                                                                                                                                                                        | 5 weeks                        |
| Elective                                        | One elective rotation is chosen by the resident in his/her area of interest. Potential rotations include antimicrobial stewardship (University Health Network / Mount Sinai Hospital), solid-organ transplantation service (University Health Network), family health team (University Health Network), pediatrics/maternal health (Oak Tree Clinic, Vancouver, BC).                                                                                                                                                                                                               | 4 weeks                        |
| Project                                         | The project is chosen in an area of interest to the resident as well as the Immunodeficiency Clinics and/or Departments of Pharmacy. The project includes project outline and protocol development, ethics submission, data collection, data analysis, manuscript write-up, and presentation of the completed study at the University of Toronto Pharmacy Residents Poster Presentation Night or another applicable conference.                                                                                                                                                    | 8 weeks                        |
| Conferences/<br>Interdepartmental<br>Activities | Time is allotted for attendance at educational conferences of interest to the resident, such as the annual Canadian HIV/AIDS Research conference (CAHR), the annual Canadian HIV and Viral Hepatitis Pharmacists Network (CHAP) meeting, Programme national de mentorat VIH/hépatites virales meeting, and/or HIV Pharmacy Education Day/Ontario HIV Treatment Network Education Conference. Rotations will be adjusted to accommodate this.                                                                                                                                       | Maximum 5 days during the year |
| Holidays                                        | To be scheduled before the start of the residency year. Holidays will be scheduled for 2 consecutive weeks over                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 2 weeks                        |

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|                    | Christmas/New Year break unless otherwise negotiated in advance.                    |  |
| <b>Total Weeks</b> | <b>52 weeks (Including Holidays; conference time is inclusive during rotations)</b> |  |

The program does not grant credit for prior learning or allow transfer credit for rotations completed at another accredited advanced year 2 pharmacy residency program.

### 5. EXTRA- ROTATION ACTIVITIES:

- Presentations (maximum 1 per rotation); during the year, the resident will prepare and give at least 2 each of case-based presentations, evidence-based pharmacotherapy presentations and journal clubs (minimum 7 during the year)
- Attend subspecialty rounds when possible (e.g., HIV Rounds, Medical Grand Rounds, Infectious Diseases rounds)
- Attend journal club when appropriate
- Attend Intra-City Pharmacy Residency Rounds (Toronto)
- Assorted Projects and reports
- Conference/workshops/educational days (optional):
  - Annual Canadian Conference on HIV/AIDS Research (CAHR)
  - Annual Canadian HIV and Viral Hepatitis Pharmacists (CHAP) meeting as guest
  - Annual HIV Pharmacist Education Conference Day, Ontario HIV Treatment Network
  - Annual Ontario HIV Treatment Network Research Conference
  - Symposium sur les aspects cliniques de l'infection par le VIH
  - Les journées québécoises VIH
  - CSHP Professional Practice Conference
  - ASHP Mid-Year Meeting
  - NB: reimbursement of conference registration (up to \$500) may be available; other costs such as travel & accommodations are the responsibility of the resident.

### 6. ROTATION OBJECTIVES:

- a) The resident will be provided with a list of objectives and activities planned for her/ his training in each rotation.
- b) The resident will develop personal program goals and objectives. Selected objectives will be discussed with the rotation preceptor to complement the rotation objectives. These will be assessed with the other rotation objectives at mid-rotation and at the end of the rotation.
- c) The activities in each rotation will be planned to make possible the attainment of the objectives.
- d) The resident will review the training objectives at the beginning of each rotation.
- e) It is the resident's responsibility to inform the rotational preceptor and the Program Coordinators as soon as possible if the objectives are not being covered.
- f) The assessment of the resident after each rotation will be based on the resident's success in meeting the rotation objectives.

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### 7. ASSESSMENT AND EVALUATION:

a) In general, the resident will complete assessments / evaluations for each rotation as follows:

- i. Mid rotation self assessment
- ii. End of rotation self assessment
- iii. Evaluation of the rotation
- iv. Evaluation of the preceptor
- v. Self-assessments of presentations and other program activities

Refer to the Evaluation Framework for specifics. The resident will have the opportunity to evaluate the program directors, program coordinators and the overall program at the end of the residency year.

- b) The primary rotation preceptor will complete a mid-point and end of rotation assessment of the resident which will be reviewed with the resident. The primary preceptor may obtain input from other preceptors involved in the resident's learning during the rotation. Ongoing feedback throughout the rotation is expected.
- c) The resident will maintain a Learning Portfolio, including copies of presentations, manuscripts, drug information questions, and examples of consults which MUST be de-identified.
- d) Mid-rotation and final rotation assessments of the resident are placed in the resident's Learning Portfolio. A summary of the final assessment results for clinical rotations will be transcribed by the resident in the Clinical Longitudinal Assessment Form (CLAF), including strengths and areas of improvement. These will be discussed by the resident with the next preceptor in order to identify competencies that should be a focus for the rotation. If needed, the prior preceptor and/or coordinator(s) can be invited to participate in the discussion.
- e) All completed evaluations and assessments will be returned to the program coordinators who will monitor the resident's overall progress through the year. The resident will complete summary reports to be presented to the Residency Advisory Committee (RAC). The resident will have semi-annual (midpoint and final) assessment meetings with the program coordinators and directors to ensure that adequate progression in all fields is occurring.
- f) The resident will have two oral, case-based exams, one at the midpoint and one at the end of the program. These exams will be administered by the program coordinators.
- g) If the resident's performance is not satisfactory based on the above assessments, the program coordinators in consultation with the RAC may provide remedial action and if needed terminate the resident.

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### 8. PROJECT

- a) The resident will be responsible for preparing a research protocol. The resident shall gain experience in the following areas:
- Background research (i.e., conducting primary literature search, assessing and selecting relevant literature to support project idea and design).
  - Study design (i.e., methodology, inclusion & exclusion criteria, sample size calculation, study end-points, statistical plan, budget preparation).
  - Collaboration with a Community Advisory Board (if applicable)
  - Ethics submission process (may include hospital, University of Toronto, Canadian HIV Trials Network, etc.) and preparing informed consent forms, if applicable.
  - Application for funding (incl. Ontario HIV Treatment Network, Ontario Positive Action Fund, CSHP annual research grant competition, private industry, and others as appropriate).
  - Subject recruitment, if applicable
  - Data collection and/or training and supervising people doing data collection.
  - Data analysis (i.e., using appropriate statistical methods, interpretation of data, identifying confounding factors).
  - Presentation/publication (abstract preparation, oral and/or poster presentation, and manuscript preparation and submission).
- b) The resident will avail himself/ herself of the opportunity to talk to the HIV clinic directors, residency program coordinators, and other clinic staff regarding potential project ideas. The preparation of the project will be appropriately guided and assisted by the program coordinators and the project preceptor. The project proposal will be concise, of reasonable length and of practical application. The resident will submit a preliminary report including results of the project to the RAC 1 week prior to the last meeting of the academic year for review. Within one month following the completion of the residency, the resident will submit a draft of the manuscript to the residency coordinators and project preceptor for review and final comments. The resident must complete the final version of the manuscript within 3 months of the completion of the residency year, and submit this to the program directors, program coordinators and project preceptor. The manuscript must be submitted for publication in a peer-reviewed journal within 3 months of the completion of the residency year. The completed final project manuscript will be then forwarded to the Faculty of Pharmacy, University of Toronto.
- c) The resident will be accountable to the Program Coordinators for the allocation of his/her time in the department and will report progress on his/her project along with any proposed changes.

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- d) **Assessment:** the Project Preceptor shall assess the resident at the mid-point and following completion of the residency project. The resident shall also complete self-assessments at these time points.

### 9. REQUIREMENTS TO PASS THE RESIDENCY

- a) The resident must satisfactorily complete all of the following components in order to successfully pass the Year 2 residency program:
- Rotations:** The resident is expected to pass all rotations in order to successfully complete the program. If the resident fails one rotation, the resident must successfully repeat a similar rotation at his/her own expense at the end of the scheduled rotations, prior to receiving the residency certificate. If two or more rotations are failed, the resident will be terminated by the Program Directors in consultation with the Residency Advisory Committee.
  - Project:** The resident must complete all assigned responsibilities regarding the research project, including submission for publication to a peer-reviewed journal, within 3 months of the end of the residency. No additional stipend will be offered during this time.
  - Oral exams:** The resident will be required to pass two oral exams, one at 6 months, one at the end of the residency. Each exam will consist of two complex patient cases. The resident must achieve a minimum score of 75% per case.
- b) The program coordinators will ensure that the resident has met the requirements for the successful completion of the residency program. Once the resident has met all requirements, the university and hospitals will recognize this by awarding him/her a residency certificate.

10. **PREREQUISITES:** Pharm.D. graduate of a Faculty of Pharmacy in which the curriculum meets the standards established by the Association of Faculties of Pharmacy of Canada; eligible for licensure to practice pharmacy in a Canadian province. Completion of Year 1 General Hospital Pharmacy Residency (CPRB-Year 1 or ACCP/PGY-1 or MSc in Advanced Pharmacotherapy) accredited program in which the curriculum meets the standards established by the Canadian Society of Hospital Pharmacists and/or the American College of Clinical Pharmacy.

11. **APPLICATION PROCEDURES:** Interested applicants should send a cover letter describing their interest, a curriculum vitae, and two letters of reference to the program coordinators.

12. **ADDITIONAL COMMENTS:** The resident is assessed during and after each rotation and at the mid point and end of the residency year according to a structured assessment process. The resident will maintain an ongoing Learning Portfolio. As well, there are quarterly reports and regular meetings with the program coordinators and RAC. Some rotations may be adjusted according to the resident's previous experience.

13. **SALARY/BENEFITS:** \$50 000 per year, no benefits. Two weeks vacation.

14. **PROGRAM DIRECTORS:**

[Dr. Olavo Fernandes](#), BScPhm, ACPR, PharmD, FCSHP  
Director of Pharmacy, University Health Network



## HIV ADVANCED (YEAR 2) PHARMACY RESIDENCY

Dr. Amita Woods, PharmD  
Clinical Manager, University Health Network

M. André Bonnici, B.Pharm, MSc  
Director of Pharmacy, McGill University Health Centre

### 15. PROGRAM COORDINATORS:

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