Mission statement of the School of Optometry and Vision Science Residencies:

To provide graduate optometrists with a programme of concentrated mentored clinical experience, and education designed to produce practitioners with advanced knowledge, skill and judgement in a selected area(s) of optometric practice. This will enable them to deliver excellent clinical care, practice life-long learning and educate members of the profession.

General description of Residency

The residency in Cornea and Contact Lenses is a clinical post-doctoral position that is designed to extend and refine the optometrist’s knowledge and skill in specific areas of clinical practice. Skills will be enhanced primarily through clinical training and enriched by seminars, clinical research, and teaching. The emphasis of the one year programme is on clinical training, nevertheless, the resident is encouraged to engage in scholarly activity and will be required to participate in the clinical education of optometry students.

Dates of Residency: July 16th 2018 to August 16th 2019

Salary: $38,000 per year

Supervisor information: CCL Residency

Primary Supervisor: Dr. Luigina Sorbara
Other supervisors: Dr. Lacey Haines, Dr. Nadine Furtado (Primary Care and Acute Care)

Location: The residency will take place in the School of Optometry and Vision Science (WOVS). A portion of the Primary care component may be scheduled at the Health Science Campus, Kitchener.

Hours: The clinical components of the residency are scheduled during WOVS operating hours (approximately 8.30 am-5.00 pm) for 5 days per week or equivalent. Self-study is expected in the resident’s own time, although half a day per week is also given for self-study, administration tasks and didactic components. Evening clinics and Saturday clinics may be scheduled, in lieu of clinic during a weekday. The resident may also be scheduled to be on-call.
Eligibility
Residencies at the University of Waterloo are available to those who have received an OD degree from an ACOE accredited programme, who are eligible to hold a full general license with the College of Optometrists of Ontario. All of the ACOE accredited programs are currently in North America.

In all cases, the license must be in place on entry to the residency. This means taking and passing the Optometry Examining Board of Canada (OEBC) examination (including the OSCE and jurisprudence examinations) in sufficient time to obtain the license and promptly submitting all paperwork to the College. See Information on applying for a General Certificate of Registration, College of Optometrists of Ontario https://www.collegeoptom.on.ca/register-with-college. Applicants are encouraged to take the OEBC exams at the earliest opportunity, in order to obtain the Ontario license by the start of the residency.

The immunization requirements are the same as for undergraduate students admitted to the OD programme (see https://uwaterloo.ca/optometry-vision-science/future-optometry-students/admission-requirements/additional-considerations).

Residency Goals and Objectives:

Goal 1 To train the resident to provide advanced optometric and contact lens care for contact lens patients, including patients with keratoconus and other complex cases

Objective 1 To train the resident to accurately and efficiently examine contact lens patients of all types/needs, implement all relevant optometric management and make the appropriate referrals when necessary

Outcome measures

I. The resident will experience approximately 550 patient encounters wearing contact lenses.

II. The resident will discuss each patient encounter with his/her supervisor until the resident displays adequate competency for each specific type of examination/level of difficulty as assessed by their supervisor.

III. There will be weekly meetings with their supervisor to discuss cases.

IV. The resident will be provided with facilities and equipment to provide specialised contact lens care.

V. The resident will submit ePortfolio/Reflections based on a patient or teaching situation in which s/he will reflect on experiences gained, knowledge and skills learnt and changes to implement for improvement.

VI. The resident will maintain an accurate log of his/her patient encounters.
VII. The Resident will also experience patient encounters at the University of Montreal, School of Optometry when on their week long exchange, when available.

Objective 2 To train the resident to conduct evaluations, including corneal topography, optical coherence tomography and photography interpretation, treatment and management of any corneal degeneration and/or any refractive surgery cases requiring CL management

Outcome measures
I. The resident will experience approximately 75 keratoconic patient encounters
II. The supervisor will review all therapy plans until the resident displays adequate knowledge of corneal and corneo-scleral contact lenses, planning and implementation as assessed by their supervisor.
III. After each contact lens evaluation, the resident will generate a detailed report outlining all tests given, results and interpretation for the patient/parent and referring professional.
IV. The resident will be provided with facilities and equipment to provide any type of CL treatment
V. The resident will submit ePortfolio/Reflections based on a patient or teaching situation in which s/he will reflect on experiences gained, knowledge and skills learnt and changes to implement for improvement.
VI. If the resident attends GSLS, s/he should also attend the pre-conference meeting at the GSLS to get training in scleral lens and other specialty lens contact lens fitting
VII. The resident will maintain an accurate log of his/her patient encounters.

Objective 3 To increase the resident's comfort and efficiency in examining and managing specialty contact lens patients of all ages for the correction of pediatric aphakia, control of myopia (Orthokeratology) and the control of progressive keratoconus in young patients (corneal cross-linking: pre-and post-management), and make the appropriate referrals when necessary

Outcome measures
I. The resident will experience approximately 75 pediatric and other specialty fit patient encounters.
II. The resident will discuss each patient encounter with his/her supervisor until the resident displays adequate competency for each specific type of examination/level of difficulty.
III. The resident will submit ePortfolio/Reflections based on a patient or teaching situation in which s/he will reflect on experiences gained, knowledge and skills learnt and changes to implement for improvement.
IV. The resident will maintain an accurate log of his/her patient encounters.
**Objective 4** To train the resident to make the appropriate referrals when necessary for the surgical treatment of refractive error

Outcome measures

I. The resident will observe a minimum of 5 refractive surgery patients with Dr. Jellie at the TLC at WOVS
II. The resident will submit ePortfolio/Reflections based on a patient or teaching situation in which s/he will reflect on experiences gained, knowledge and skills learnt and changes to implement for improvement.

**Goal 2** To enhance the resident’s skills in optometric primary care for patients of all ages

**Objective 1** To train the resident to conduct a complete primary care examination with appropriate treatment and management to maintain these skills

Outcome measures

I. The resident will experience a combined total of approximately 100 primary care or Acute Care patient encounters and on-call rotations during the year in the UW Primary Care or Acute Care clinic or at the HSOC clinic.
II. Appropriately licensed faculty will be available for consultation to advise the resident on assessment, diagnosis and management of patients.
III. The resident will take part in bi-weekly meetings with an experienced optometrist to discuss cases, progressing to monthly meetings based on good progress, until the resident displays adequate competency.
IV. The resident will be provided with facilities and equipment to provide full primary care assessments and therapy.
V. The resident will submit ePortfolio/Reflections based on a patient or teaching situation in which s/he will reflect on experiences gained, knowledge and skills learnt and changes to implement for improvement.
VI. The resident will maintain an accurate log of his/her patient encounters.

**Goal 3** To increase the resident’s knowledge of cornea and contact lenses

**Objective 1** The resident will participate in a programme of didactic activities and self-study.

Outcome measures

i. The resident will attend three clinical optometric conferences during the year (American Academy of Optometry, Global Specialty Lens Symposium and the British Contact Lens Conference).
ii. The resident will have access to the UW Witer Learning Resource Centre (library) resources.

iii. Attend seminars at the School of Optometry and Vision Science whenever possible. The resident would be released from patient bookings to attend the Graduate conference.

iv. Attend on-line webinars concerning the latest trends in fitting for the keratoconic patient provided by the CLMA group

v. Participate and present in Rounds sessions with other Residents and Faculty

**Goal 4** To develop the resident’s ability to critically review the literature

**Objective 1** The resident will participate in a lecture/reading course provided by the supervisor and other faculty.

Outcome measures

i. The resident will read specified articles/chapters/on-line material and participate in discussions based on the material.

ii. The resident will write a review paper or a case report based on a specified topic suitable for submission to a peer-reviewed journal.

iii. As part of the Resident’s didactic curriculum, the resident will participate in the Evidence Based Medicine (EBM)/Journal club, which is a directed reading class with the focus of developing skills to critically appraise the clinical literature with an emphasis on evidence based medicine and clinical statistics.

**Goal 5** To train the resident to become an effective communicator and educator

**Objective 1** The resident will participate in speaking and writing opportunities under guidance and will receive feedback from his/her supervisor(s)

Outcome measures

i. The resident will present at least one seminar/lecture during their residency

ii. The resident will prepare a paper of publishable quality in a form suitable for publication in an academic or clinical journal

iii. The resident will submit a poster or paper of a case report for presentation at AAO, GSLS or BCLA
iv. As part of the Resident’s didactic curriculum, the resident will participate in a series of workshops on writing skills, oral communication skills and case study development.

**Objective 2** The resident will be involved in the clinical supervision of optometry interns during their rotation in the clinic

**Outcome measures**

i. The resident will be scheduled to supervise undergraduate UW optometrists in the contact lens clinic from the Winter term of the first year of the residency onwards.

ii. As part of the Resident’s didactic curriculum, the resident will participate in a series of workshops to prepare and develop the resident’s skills for supervising undergraduate UW optometry students.

iii. The resident will receive teaching evaluations from the undergraduate students in the clinic.

**Objective 3** The resident will be involved in the teaching of contact lens labs during the Fall and Winter terms of residency

**Outcome measures**

i. The resident will be scheduled to supervise undergraduate UW optometry students in the contact lens laboratory for a day per week in the Fall and Winter terms of residency.

ii. The resident will attend 2 or 3 training meetings throughout their residency sponsored by contact lens companies. For example, the August CLMA sponsored (all costs covered) CL residency training programme usually held at the Optometry School in St. Louis, Missouri and either the J&J CL residency training in August held in Florida or another sponsored residency meeting such as Valley Contax in California.
**Typical Weekly Curriculum:** *direct patient care in bold italics, clinic supervision i.e. supervision of Optometry undergraduates in italics and laboratory teaching and self-study in plain type.*

<table>
<thead>
<tr>
<th>July-August *</th>
<th>Term 1: Fall</th>
<th>Term 2: Winter</th>
<th>Term 3: Spring</th>
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</thead>
<tbody>
<tr>
<td>Week 1: orientation and shadowing with current resident</td>
<td>3 days CL Clinic - direct patient care**</td>
<td>1.5 days CL Clinic - direct patient care</td>
<td>3 days CL Clinic - direct patient care</td>
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<tr>
<td>Week 2-4: 2.5 – 3 days CLs - direct patient care</td>
<td>1.5 days CL Clinic - supervision</td>
<td>1 days CL Clinic - supervision</td>
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<tr>
<td>Week 2-4: 1.5-2 day PC/AC - direct patient care</td>
<td>½ day PC/AC Clinic – direct patient care</td>
<td>½ day PC/AC Clinic – direct patient care (at HSOC or WOVS)</td>
<td>½ day PC/AC Clinic - supervision</td>
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<tr>
<td></td>
<td>1 day lab instruction† (Opt 347L) with CL direct patient care for the non-didactic weeks</td>
<td>1 day lab instruction† (Opt 367) with CL direct patient care for the non-didactic weeks</td>
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<tr>
<td>½ day self-study</td>
<td>½ day self-study</td>
<td>½ day self-study</td>
<td>½ day self-study</td>
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Part of Tuesday morning is reserved for classes, workshops and rounds.

*Note with July 16th start there is an overlap with the current CL resident, so the residency is 13 months in length. The current resident will pass over their current cases to the new resident and have a supervisory role with the new resident.

†Note that the clinic term is longer than the didactic term.

**Supervision:**

**Contact Lenses**

a) The CL supervisor/mentor will be Dr. Sorbara. She will act as a partner and teacher to the CL resident. The resident will meet with the mentor on a weekly basis to review cases. Many cases that the resident will be following will be patients previously seen by the mentor and so a historical review of the successes and failures can be discussed with the mentor. Any challenging new cases can be directed to the mentor at first for their opinion on appropriate management in discussion forums or in person.

b) The CL supervisor/mentor will be replaced from time to time in their absence by faculty selected by the mentor to continue to monitor their progress and answer any questions that may arise.
Primary care/Acute care

a) For supervision of the AC/PC components, arrangements will be made so that the resident knows which clinician to consult regarding a patient (at the time of the appointment), should s/he need to do so. File review meetings for the primary care and/or acute care portions will take place at least one per month with a designated Faculty member, but may be more frequent at the start of the residency and depending on the number of days per week that the resident is scheduled for these activities.

After Hours On-Call

a) The resident may also be scheduled to be on-call. A staff optometrist will be available for direct patient consultation or by phone, if necessary.

Saturday HSOC Clinic

The resident may be scheduled to participate in Saturday clinics in lieu of clinic during a weekday. A licensed optometrist will be on-site for consultation.

Clinical Experience:

The residency curriculum is constituted as an educational programme focused upon patient care and clinical research. The School of Optometry CL Clinic has a varied patient population. Duties and responsibilities will include independent patient care of average and then gradually specialty fit patients (Keratoconic, Pellucid Marginal Degeneration, post-surgical, paediatric, toric GP, bifocal and therapeutic fittings). The numbers of patients booked will increase throughout the year. Supervision will be per patient initially but as the resident’s confidence and experience increases, they will have discussions with the supervisor and discuss cases as needed. The teaching and supervision of undergraduate students in their clinical, and laboratory programmes will enhance the resident’s teaching skills and knowledge base.

The resident is expected to devote an appropriate amount of time to professional self-development through the use of library and research facilities. The resident will produce a manuscript of publishable quality such as a case report or be involved in an equivalent scholarly activity such as helping with data collection for a clinical study or survey under faculty guidance. Residents are expected to attend seminars in the Optometry programme whenever possible.

The resident will spend time becoming familiar with the specialty products and with the mentor will spend time with the manufacturers that come to the School on a regular basis to inquire about fitting strategies, product availability and return policies.
Scholarly/didactic activities

There is the expectation that the resident must;

a) Participate in a directed reading journal club (EBM/Journal club) with the focus of developing skills to critically appraise the clinical literature. This will include topics on clinical statistics, evidence-based medicine and research design.

b) The resident will write and submit an article in a form suitable for publication in a peer reviewed clinical or academic journal by the end of the residency.

c) Attend seminars and lectures at the School of Optometry and Vision Science whenever possible, including the evening Alcon lectures.

d) Attend 2 out of three of the American Academy of Optometry, GSLS and the BCLA meetings. There is a budget of $2000 which is paid proportionally from WOVs for attending conferences.

e) The resident is expected to devote an appropriate amount of time to professional self-development through the use of library and research facilities.

f) The resident will attend two CL residency training programmes that are available to our school and supported by the CL industry (CLMA and J&J). At the former training programme, held in August, many verification and fitting techniques for GP lenses are reviewed for the resident. This is an important aspect in fulfilling this residency programme. The latter programme will include training on multifocal and specialty fitting and is also held in August.

g) Participate and present in short and grand Rounds sessions with other Residents and Faculty [see a) below].

Educator/knowledge sharing component

The resident will

a) Present four oral presentations: two short rounds, one grand rounds and one open-style oral presentation (Grand rounds or continuing education lecture)

b) Submit a poster or paper of a case report for presentation at AAO, GSLS or BCLA

c) Prepare a paper suitable for publication in an academic or clinical journal (see above). This may be based on the same case or topic as one of the oral presentations.

d) As part of the Resident’s didactic curriculum, participate in a series of workshops on writing skills, oral communication skills and case study development.

e) As part of the Resident’s didactic curriculum, participate in a series of workshops to prepare and develop the resident’s skills for supervising undergraduate UW optometry students.
**Additional activities**

a) Photo documentation - the resident will be involved in the photo documentation of clinical findings that may arise during their clinical care. This will include the use of digital imaging technology.

b) Specialized Techniques – the resident will be required to become familiar with techniques such as pachymetry, aesthesiometry, corneal topography/tomography, and other specialised research procedures.

c) Clinical Research Projects – on occasion the resident may have the opportunity to participate in clinical studies that are being conducted by their mentor or other faculty. This activity is purely on a voluntary basis.

**Assessment and Evaluation of the C&CL resident**

- The resident will receive feedback from his/her supervisors on the grand rounds and the open-style presentation for content and delivery and the seminar will be graded by the audience (faculty, other residents and students) using a written evaluation.
- The case report/review/research paper will be reviewed for content and writing style by the supervisor(s).
- At the weekly (CL) or monthly (PC) meetings with the WOVs supervisors, the resident will be given feedback on their clinical performance.
- There will be two interim and one final written evaluation on overall progress and performance. Any major concerns with performance can be provided in written format at any time.
- Regarding clinical supervision, the resident will receive teaching evaluations from the undergraduate students in the clinic.
- The resident will receive a written evaluation at least once per term on their overall progress in the residency.
- The resident will receive an evaluation of his/her ePortfolio/Reflections

**Requirements for residency completion and awarding of certificate**

To successfully complete this residency, the resident must complete all components of the program outlined, including patient care, laboratory teaching, attendance at required classes and workshops, all oral presentations, portfolio/reflection, log of patient encounters and article completion.

Sickness leave in excess of six days per year must be made up at the end of the program to consider the program complete.

Certificates will be awarded at the Fall Awards ceremony.
Termination of Residency

Termination of the Residency may be considered in situations where the Resident is functioning in a manner considered to be of potential danger to the well-being of patients, or contrary to policies or procedures of the Clinic or workplace, or contrary to regulations or standards of care of the regulating body of Optometry or the prevailing laws of the Province or Canada, or for failing to make adequate progress. Should a termination of employment be deemed necessary, Employment Standards Act guidelines will be followed.

The process for Remediation and Dismissal is described in the Guide for Residents.

Liability Insurance

The University of Waterloo’s general liability insurance policy, including professional and malpractice liability insurance, provides coverage for current University of Waterloo residents, in respect of any activity required by the discipline within their University of Waterloo program, whether their education or training is conducted on or off the campus.

Benefits

The resident is entitled to 10 days of vacation and 10 days of leave for attending conferences.

Residents are entitled to extended health care, see https://uwaterloo.ca/human-resources/support-employees/benefits/benefit-eligibility-and-eligible-dependents

The School of Optometry will pay one year fees to the College of Optometrists of Ontario. This will be for the year commencing in January of the residency programme.