

# **Combined Fellowship in Pediatric Hematology and Oncology and Graduate Program in Cell and Molecular Genetics**

**A cooperative venture of the Van Andel Institute Graduate School,  
the Pediatric Hematology and Oncology Fellowship Program at Helen DeVos  
Children's Hospital and the Grand Rapids Medical Education and Research Center**

**Concept:** Interested fellows in the Pediatric Hematology and Oncology Program at Helen DeVos Children's Hospital (HDVCH) with appropriate qualifications are invited to seek additional training at the Van Andel Institute Graduate School (VAI-GS). The purpose of this combined training program is to provide both in-depth clinical and research training for physicians in the field of pediatric hematology and oncology. The cooperative program will culminate in a Ph.D. and subspecialty board eligibility in pediatric hematology and oncology.

**Context:** The mission of the VAI-GS is to prepare biomedical research scholars through a graduate program in cell and molecular genetics, with emphasis on translation of this knowledge and technology to improve human health and well-being. Fellows with a passion for biomedical research or translational medicine will be particularly well-suited for this graduate program. The innovative curriculum and programmatic flexibility of the VAI-GS provides a unique context for fellows to develop their research skills.

The program is intended to be consistent and compliant with the principles governing fellowship activities as specified by the American Board of Pediatrics. The program combines clinical and research training to yield physician-scientists that are well-fit for careers in basic science or clinical research.

**Training Plan:** The training plan for each participant will be developed on an individual basis depending on prior research experience, time of entry into the program and the clinical components specified by the hematology and oncology program. A sample training plan incorporates many of the features expected of this program.

## **Year 1:**

1. Clinical training, 10 months
2. Research rotation (6 weeks): Select a VAI research mentor, define scope of thesis research project, project aims and approaches.
3. Convene initial meeting of thesis advisory/scholarship oversight committee.
4. Occasional participation in ancillary research-related experiences (journal clubs, lab meetings, research seminars).

## **Year 2:**

1. VAI-GS coursework: Research problem-based curriculum, incorporating objectives from biochemistry, genetics, cell biology, molecular biology, bioinformatics and pathophysiology. Students will work cooperatively to craft research proposals addressing specific questions in various domains of human disease, especially cancer.
2. Thesis research directed by VAI principal investigator.

3. Completion of comprehensive preliminary examination and defense of thesis proposal.
4. Continuing clinical experiences (approximately 10% of time or one half day/week).

**Years 3 and 4:**

1. Thesis research directed by VAI investigator
2. Semi-annual meetings with thesis advisory and scholarship oversight committee.
3. Limited clinical experiences (approximately 10% of time or one half day clinic per week).
4. Special topics courses (i.e. graduate seminar courses).
5. Attendance at journal clubs, research seminars, grand rounds, fellow clinical lectures, and tumor board meetings.

**Year 5:**

1. Thesis research directed by VAI investigator, culminating in dissertation / defense.
2. Semi-annual meetings with thesis advisory and scholarship oversight committee.
3. Limited clinical experiences (approximately 30% of time with one half day of clinic per week and four clinical rotations at the end of the fifth year).
4. Special topics courses (i.e. graduate seminar courses).
5. Attendance at journal clubs, research seminars, grand rounds, fellow clinical lectures, and tumor board meetings.

**Financial Support:**

Stipend and benefits for physician participants in the Ph.D. program will match those for other fellows in GRMERC programs. Application for extramural fellowship grants are encouraged but not required.

**Application Process:**

Candidates will apply to the Pediatric Hematology and Oncology Fellowship Program at Helen DeVos Children's Hospital through the ERAS application program. Fellows who have matched to the Pediatric Hematology and Oncology Program at HDVCH are invited to apply to the VAI-GS, a process facilitated by the Pediatric Hematology and Oncology Fellowship Program. Letters of reference, school transcripts and an essay describing research experience or interest are required. MCAT scores may be substituted for GRE scores. More information about the VAI-GS is available for review at: [www.vai.org/Education/GraduateSchool.aspx](http://www.vai.org/Education/GraduateSchool.aspx).