



**2019 Application for Metro Medical Staff Summer Research Internship**

**Purpose:**

To provide a “hands-on” basic medical science laboratory research experience for dependents of Medical Staff at Aurora Health Care Metro

**Minimum Requirements:**

- 18 years old or older
- Be available full-time during standard business hours for a continuous 10-week period between late May and the middle of August.
- Be the child or ward of a member of the Medical Staff at Aurora Health Care Metro (Aurora St. Luke’s Medical Center, Aurora Sinai Medical Center, Aurora St. Luke’s South Shore Medical Center, Aurora West Allis Medical Center or Aurora Psychiatric Hospital)
- Completed at least one year of college and currently enrolled in a college. (Current seniors who will graduate in the spring of 2019 are **NOT** eligible.)
- Completed college courses in biology and chemistry (with at least one wet laboratory)

**I. Personal Information**

Name \_\_\_\_\_

Cell # \_\_\_\_\_

Email address: \_\_\_\_\_

College Where Currently Enrolled \_\_\_\_\_

Current College Level:

(Fr, So, Jr – current seniors are not eligible) \_\_\_\_\_

Anticipated Graduation Date \_\_\_\_\_

School Address: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Medical Staff Parent’s Name \_\_\_\_\_

Home Address and Telephone # \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**II. College Academic Record (attach transcripts) - Briefly describe laboratory experience in college courses (or relevant high school courses). Include specific laboratory skills acquired.**

(1 paragraph)

**III. Describe Independent Laboratory Experience (excluding high school and college courses) (1 paragraph)**

**IV. Attach Letters of Recommendations – from 1-2 college (preferable) or high school faculty on official school letterhead in a sealed envelope (confidential)**

**V. Scientific Interests (1 paragraph)**

**VI. Preference for Laboratory Placement** (please rate from 1-3 with 1 being your FIRST choice and 3 being your LAST choice). Please use the brief description of each laboratory (below) to make your decision:

\_\_\_\_\_ **Cardiovascular**

\_\_\_\_\_ **Endocrine**

\_\_\_\_\_ **Neuro-oncology**

\_\_\_\_\_ **Oncology**

**VII. Career Goals** (1 paragraph)

**VIII. Parent Sponsor's Involvement With Aurora Health Care** – Medical staff privileges/status, speciality/subspeciality, committee work, length of association

**Application must be completed and returned by February 22, 2019.**

**Send Completed Application to: Mary Groce, 960 N. 12th Street, Suite 4120, Milwaukee, WI 53233; Phone: 414-219-7824; email: mary.groce@aurora.org**

**For clarification purposes and/or for additional information, you may be contacted for a brief phone interview.**

**Brief Description of Laboratory Placements:**

**Cardiovascular, Aurora St. Luke's Medical Center:** The focus is understanding the mechanism(s) underlying aging-associated heart diseases and strategies for prevention. The student(s) will participate in projects such as the analysis of cell energetics, electrophysiology and intracellular Ca<sup>2+</sup> signaling in cardiac cells and fibroblasts from surgical human heart samples and in-vivo cardiac imaging and hemodynamics in animal models and will acquire skills in molecular biology, cell culture, and confocal laser microscopy.

**Endocrine, Aurora St. Luke's Medical Center:** The focus is the examination of the control of the hypothalamic-pituitary-adrenal axis in the neonate. The student will work with laboratory rats, perform physiological experiments, measure hormones, perform quantitative PCR and in vitro cell assays, learn the elements of biostatistics, and develop presentation skills.

**Neuro-Oncology, Aurora Sinai Medical Center:** The focus is the characterization of brain tumor stem cells and development of anti-cancer therapeutics using drug combinations and/or virus. The project(s) may involve cell culturing using patient-derived surgical samples, immunocytochemistry staining, qPCR technique to study gene expression, tissue sectioning, neural stem cell assays, viral assays and some studies using laboratory tumor-bearing mice.

**Oncology, Aurora Sinai Medical Center:** The focus is the characterization of breast tumor stem cells and development of anti-cancer therapeutics using drug combinations. The project(s) may involve cell culturing using patient-derived surgical samples, immunocytochemistry staining, qPCR technique to study gene expression, tissue sectioning, and some studies using laboratory tumor-bearing mice.