A core function of the Scientific Office of the Emergency Strategic Clinical Network (ESCN) is to build research capacity in emergency medicine. The ESCN Summer Studentship Award is designed to foster research interest in emergency medicine and related disciplines among students at the undergraduate level of study. Through the results of the research projects conducted by the students, this initiative contributes to the quality of emergency medicine care delivery within the Health Quality Council of Alberta’s six domains of quality: appropriateness, accessibility, effectiveness, efficiency, safety, and acceptability. The ESCN Scientific Office provided funding for six (6) summer studentships in research in 2017 through a peer-reviewed competition.

**Student:** Adrian Battiston, MD Candidate, University of Alberta  
**Supervisor:** Dr. Cristina Villa-Roel, MD, PhD  
Research Associate, Department of Emergency Medicine, University of Alberta  
**Project Title:** Exploring health care connections and transitions in care for patients presenting to the emergency department with asthma and chronic obstructive pulmonary disease.  
**Work completed:** Adrian conducted a literature review, screening 1,508 records for inclusion and selecting 7 existing review (four systematic reviews, two scoping reviews and one rapid review). He is continuing with data extraction and writing up results.  
**Impact for the student:** “This summer experience has been invaluable in teaching me the necessary skills to understand, perform, evaluate, and interpret medical research. This will prove to be an extremely valuable skill as I pursue a future career as a physician at an academic institution and as I integrate evidence based medicine into my future practice.”

**Student:** Daniel Dabbs, RN & MD Candidate, University of Alberta  
**Supervisor:** Dr. Kathryn Dong, MD, MSc, FRCP(C), DABAM  
Director, Inner City Health and Wellness Program & ARCH Team, Royal Alexandra Hospital;  
Associate Clinical Professor, Department of Emergency Medicine, University of Alberta  
**Project Title:** Access to Take Home Naloxone in The Royal Alexandra Hospital’s Emergency Department for Patients at Risk of an Opioid Overdose  
**Work Completed:** Daniel conducted a retrospective chart review of patients presenting to the Royal Alexandra Hospital’s Emergency Department for opioid overdose between March 2016 and March 2017. Using a standardized data abstraction form, information on socio-demographics, co-intoxication, clinical severity, length of stay, and THN kit training and dispensing was collected and analyzed. Findings from this study will be presented to ED staff and Alberta Health Services’ stakeholders to inform ongoing THN program quality improvement.  
**Impact for the student:** “My summer research study has reminded me of how I would like to continue to perform research throughout my future career in medicine. Furthermore, I learned how important timely clinical research can be to shape current healthcare policies and medical decisions.”
Student: Thomas Kellner, Medical Student, University of Alberta
Supervisor: Dr. Stephen Freedman, MDCM, MSc
Associate Professor of Pediatrics, Alberta Children’s Hospital Foundation Professor in Child Health and Wellness, Alberta Children’s Hospital
Project Title: Comparing the Epidemiology of Acute Gastroenteritis in Children in Home Self-Care and Emergency Department Populations
Work Completed: Thomas has begun work on a manuscript which evaluates the concordant positive, concordant negative and discordant results in Salmonella spp. detection in a paediatric cohort. He used his studentship time to research this topic, identify gaps in knowledge in this field, develop a project that would help fill these gaps, collecting data and then conducting preliminary data analysis.
Impact for the student: “As a medical student, I hope to take what I have learned and use it to understand that methods of diagnosis change over time, as does our knowledge of any given topic. This has taught me the importance of staying up to date with current and breakthrough methods that improve patient outcomes.”

Student: Carol Rizkalla, MD Candidate, Royal College of Surgeons Ireland
Supervisor: Dr. Elaine Gilfoyle, MD, MMed, FRCP C
Clinical Assistant Professor, Section of Critical Care, Department of Paediatrics, Cumming School of Medicine, University of Calgary
Project Title: Analyzing Distractions in a Simulated Pediatric Resuscitation Event
Work Completed: Carol reviewed literature around her subject and analyzed videos of 86 simulation scenarios, from 43 teams across Canada at 4 different hospitals. She then prepared descriptive statistical results. The aim was to obtain a greater understanding of how planned distractions affected a team’s ability to notice and manage the patient’s clinical deterioration. Her results show that a team-training educational intervention taught teams how to manage interruptions. This can lead to improvements in training for teams in the future, which could result in improved patient outcomes.
Impact for the student: “I learned how to think critically when forming a research question and when determining the variables needed to answer the question. I was also reminded that the objective behind any medical research should be for the purpose of helping patients.”

Student: Nicola Symonds, Undergraduate Student, Science, University of British Columbia
Supervisor: Dr. Paul Ronksley, PhD
Assistant Professor, Department of Community Health Sciences, Cumming School of Medicine, University of Calgary
Project Title: Effectiveness of hospital avoidance interventions among elderly patients: A systematic review
Worked Completed: Nicola was the primary reviewer in this systematic review. The project team reviewed a total of 7542 abstracts – this included a review of other reference lists. A total of 425 articles were included for full-text analysis. Finally, a total of 43 articles were selected for
inclusion in the review. Data extraction is complete and the project team is in the process of synthesizing the results.

**Impact for the student:** “Enhancing my critical reading and thinking skills, collaborating with team members of different backgrounds and experience, and allowing me to play a more advanced leadership role given my past experience in systematic reviews were important results from this experience. I look forward to continuing to contribute to this field as I pursue my goal of attending medical school.”

**Student:** Mairead Whelan, Undergraduate Student, Health Sciences, University of Calgary

**Supervisor:** Dr. Brent Hagel, PhD

Associate Professor, Departments of Paediatrics and Community Health Sciences, Cumming School of Medicine, University of Calgary

**Project Title:** *Environmental Determinants of Youth Cyclist Injuries*

**Work Completed:** Mairead examined how the built environment of urban Calgary affects injury risk in child bicyclists through interviews with ED patients. She recruited participants for the study, built a file for each participant (including maps of the area of the injury for route mapping during the interview), and conducted each interview with one of her colleagues. She presented her work at the Alberta Children’s Hospital Research Institute Summer Student Symposium.

**Impact for the student:** “I learned a lot about the built environment, active transportation, and the field of sports injury prevention. The opportunity to be involved with a cross-Canada research study while it’s just beginning was a unique experience, and was an interesting window into the process behind a research project.”