Research Paragraph Examples

Tips
• Specify where you worked on your research and with whom you worked.
• Always refer to mentors with proper titles (i.e. John Doe, M.D., Ph.D., NOT Dr. John Doe).
• Use proper formats and citations in referring to articles, journals, bacterial organisms, etc.
  o Name of journal in italics, title of article in “quotes.”
• Include any presentations, abstracts, manuscripts, etc. that resulted from your research.

Example 1
For his 16-week research block, Mr. A worked in an applied physics laboratory at the University of Windsor under the mentorship of Charles Kent Smith, M.D. and Lynda Montgomery, M.D., M.Ed. He designed and built a bench-top prototype of an ultrasound probe for rapid triage and diagnosis of pulmonary trauma in a non-hospital setting. To demonstrate proof of concept, an artificial human thorax was constructed with matching acoustic properties of normal parenchyma, pulmonary edema, and pneumothorax. Additionally, a percussion hammer and ultrasound sensor were interfaced with a computer in order to analyze the signals. Initial spectral analysis of signals suggests a computer algorithm can distinguish between healthy lung parenchyma and pneumothorax based on reproducible frequency peaks and bandwidth of signal. Mr. A has submitted an abstract for a review paper concerning this research.

Example 2
For her research block, Ms. B worked with Robert Haynie, M.D., Ph.D. at MetroHealth Medical Center on the epidemiological factors of obesity and hypertension among children and adolescents. She and her co-investigators explored the association of continuity of care and the diagnosis of hypertension among pediatric patients. Ms. B also investigated temporal trends in the diagnosis of pediatric obesity over the last seven years. Lastly, she examined when within the course of chronic disease that family history is assessed. Ms. B presented her research at Irwin H. Lepow Medical Student Research Day at Case Western Reserve University and gave a poster presentation at the Annual Childhood Obesity Conference in April 2009. This research also resulted in three papers, one of which Ms. B was first-author. Her paper, “Diagnosis of obesity in children and adolescents: 1999-2007,” was accepted in Pediatrics, and two papers are currently under review.

Example 3
During the 4-month medical school research block, Mr. C worked in the lab of Robert Haynie, M.D., Ph.D. and Steven Ricanati, M.D. using Caenorhabditis elegans to study the relationship between anesthetic sensitivity and specific protein subunits in Complex I of the mitochondrial electron transport chain. RNA interference experiments were performed in C. elegans targeting the gene gas-1 and the gene sequence W10D5.2. Following RNAi, mitochondria from nematodes was isolated and oxidative phosphorylation assays were performed. RNAi knockdown was assessed by RT-qPCR and anesthetic sensitivity assays were performed using the general anesthetic halothane. The work showed that gas-1 RNAi decreased Complex I-dependant respiration rates and increased sensitivity to anesthetic. However it also showed that the results achieved from RNAi in eri-1(mg366) mutant C. elegans (with reported enhanced sensitivity to RNAi), were not significantly different from results from RNAi in the wild-type strain. This research resulted in one abstract and one manuscript. Mr. C is first-author on an abstract currently under review for publication.