Medical Physics Seminar
Monday, February 10, 2020
1325 HSLC ~ 4 PM

**Parminder S. Basran,
Ph. D., FCCPM**

Cornell University

College of Veterinary
Medicine

Veterinarians Do Medical Imaging Too: Machine Learning Applied to Race Horses

Last year 61 horses died from catastrophic front limb injury in Australia and at least 100 suffered the same fate in the US. The reasons for these deaths are complex and influenced by, among other things, financial and societal factors, and access to care for these animals. As done in human medicine, screening tools, such as blood samplings and x-ray imaging could be used as improve the quality of care and mitigate catastrophic events. However, veterinary medicine poses unique challenges, such as patient compliance, cost, and differing standards care. Some of these challenges could be addressed with Artificial Intelligence and medical imaging. While AI systems applied in health care are now ubiquitous and powerful, they can be nebulous and have unintended consequences. In this presentation we provide a brief overview of machine learning methods in medical imaging, provide examples of machine learning as decision support tools in veterinary medicine; discuss some of the challenges in using machine learning unique to veterinary medicine; and explore the feasibility of AI, via Radiomics and Deep Learning from CT images, as a screening tool in race horses.

1325 Health Sciences Learning Center (HSLC) 4:00—5:00