Mind the Gap in Radiotherapy

On 5/2018, Rayos Contra Cancer (RCC) officially incorporated as a nonprofit organization. Thanks to the collective support of passionate individuals, groups, and academic and industry leaders, we have established a unifying trajectory and a fast-growing team. Without any indication of stopping, cancer incidence is expected to rise nearly 50% in the next decade with more than 70% of cases occurring in low-resource settings. In these regions, the lack of screening, health education, and accessibility lead to complex, later-stage disease presentations.

Radiation therapy is an essential component of cancer treatments, benefiting over half of all cases around the world. However, in low-resource regions, up to 90% of patients lack access to radiotherapy. RCC aims to bridge this gap in the availability of radiation oncology around the world. Using existing healthcare infrastructure in Latin America, with ongoing projects already in Peru, Guatemala and Colombia, we seek to develop a scalable model that expands much needed treatment worldwide.
Dr. Li founded Rayos Contra Cancer with a vision to connect existing talent, technology, and resources to create a sustainable and scalable solution to the growing burden of cancer globally. He studied Physics at Harvard University before attending Vanderbilt University School of Medicine, where he received a certification in Global Health and obtained his Healthcare MBA from Owen Graduate School of Management. He is completing his medical residency training at St. Mary's Medical Center and radiation oncology at the University of California San Francisco. He is a member of ASTRO, ASCO, and the Society for Palliative Radiation Oncology and serves on the Association of Residents in Radiation Oncology (ARRO) Global Health Subcommittee. He has traveled in Latin America and Asia and is passionate about serving the poor and motivating others to shine.

Project ECHO:

Telehealth Model of Education and Care Delivery

Rayos Contra Cancer is an official partner of Project ECHO, based at University of New Mexico School of Medicine. Project ECHO addresses the concern of shortage of medical experts in rural and underserved communities using telecommunications technology. Through hub-and-spoke knowledge-sharing networks, Project ECHO utilizes a model that connects experts around the world to clinics that have a shortage in specific medical education and training. These experts work to improve the quality of treatments in underserved communities. RCC’s impact includes incorporation of key, innovative components, such as multi-institute support, into the telehealth initiative. We are actively looking for experts in oncology and medical physics fields to offer their insights in aiding Latin American cancer professionals.

September 14th Pilot Project ECHO session between Rayos Contra Cancer and INEN in Peru. Discussion led by Dr. Juan Trejo with INEN and Dr. Diandra Peacock with Vanderbilt Medical Center. Cases presented includes cervical cancer cases planned in VMAT.

RCC will build off this experience to launch a longitudinal SBRT/SRS curriculum and demonstrate the scalable potential in 2019.
First Halcyon in Central America:

Instituto de Cancerologia (INCAN) in Guatemala will be receiving a Halcyon Linear Accelerator through a USAID Grant proposed by Washington University in St. Louis and Varian. In the next six months a new bunker will be prepared, and within the year this upgrade will replace an existing Cobalt machine. Rayos Contra Cancer will support their transition from an outdated, sub-optimally equipped cancer center to a facility with state-of-the-art improvements as a consultant and partner. This transformation will serve as a pivotal model for other centers in Central America where access is limited. We seek to deliver unbiased reports and guidance on changes in equipments, treatment planning systems, and planning high-efficiency clinic operations.

Integration with Cloud-Based Tools:

Rayos Contra Cancer has partnered with ProKnow, which offers cloud-based radiation oncology software that is both simple and powerful. It allows for shareable treatment plan contouring, analysis, peer review, data analytics, and more. By integrating ProKnow with Project ECHO sessions, we are opening new doors for educational and competency-based assessment, academic collaborations, and more. We are thrilled to establish this partnership for promoting global health education, training, and development in resource-constrained settings of radiation oncology.

New Partnerships:

In addition to the continued support from the Vanderbilt Owen Graduate School of Management and the Tuner Family Center for Social Ventures, this year we are excited to include more MBA students in our global health efforts. The incorporation of advanced radiation treatments in low-income countries must demonstrate both health and financial benefits in order to be accepted by the government and health systems. MBA students will begin by seeking to establish an economical argument for the transition from 2D to 3D radiotherapy in Latin America.