

## Neuro-Oncology Quarterly Report

Thanks to the tireless efforts of the radiation physics and therapy teams at Sharp Memorial / Amtower, cutting-edge and high-precision radiosurgery and radiation therapy technology is now fully commissioned and offered to neuro-oncology patients with complex malignancies of the brain and spinal column.

The Apex treatment systems allows for highly focused and conformal radiation therapy to complex tumors within the brain and spine, and within or near critical normal structures. The Hexapod system allows high-precision adjustments and accurate delivery of these highly focused beams to within ~ 1mm and ~1 rotational degree of spatial accuracy. The combination of these advanced technologies and the expertise of our team allow for highly effective treatment of such tumors, while minimizing risks, and advance the Laurel Amtower's xxxxs anti-cancer armamentarium to new levels of excellence.

### **This international consortium of 4 centers of excellence will:**

1. Establish a multi-institutional consortium across high-volume linac-based Radiosurgery (SRS) centers.
2. Generate a robust database of linac-based SRS.
3. Conduct large-scale research focusing on projects that require a high volume of data gathered in a multi-institutional context.
4. Validate best practices.
5. Evaluate clinical outcomes that are relevant in the current era of cancer medicine.

### **Grant and Budget:**

The grant and Statement of Work has been agreed between MGH and Elekta. Signatures of both parties are pending. The grant covers costs for 4 participating institutions to complete IRBs (up to \$3,500 per site) and collect data (up to \$5,000/ institution).

### **Proposed pre-database studies:**

1. **Practice survey:**
  - a. Hypofractionation, single fractions, intact and cavities, single targets and multiple targets, timing of SRS post Surgery.
  - b. Multiple centres: not just the consortium members.