**Isotope Production Meeting**

**Minutes 9/4/15**

**Attending**: Neil, Hutton, Areti, Degtiarenko, Myneni

We did a general update on actions taken: set up mail list, contacted collaborators outside JLab, did initial isotope production test run with the conclusion that a higher energy is needed. Discussions on how to handle the wide array of branch points facing us. A decision was reached to develop engineering designs for a generic radiator target with maximum reasonable power of a beam at 40 to 50 MeV. Secondary designs will be developed for lower power direct beam targets for Ga (as small a target as possible but only order 1 kW)

**Actions to move forward**:

Neil: Set up meeting within about 2 weeks with VCU folks and our team to inform our approach moving forward. Key questions for them:

Can they process and then recover unused Radium? What level of target istotope concentration is desirable? What is loss in recovery process?

For each of the proposed isotopes what is the desired product activity in each batch? (this sets how long we need to run). What is total market level?

Can they distill Ga? Is chemical separation preferable?

Jordan: Begin design of generic radiator system for a) thin target, b) thick target. Estimate maximum power it can handle. Begin design of 1 kW small Ga direct beam irradiation target. Beryllia ceramic chamber?

Degtiarenko: For the Radium process estimate production rate per microamp of beam to thin radiator at optimum energy (saturation curve). What are the undesirable products produced? At what level compared to target isotope?

For the Ga process estimate production rate per microamp of beam at optimum energy (saturation curve). What are the undesirable products produced i.e. level of alternative Cu or other isotopes? At what level compared to target isotope?

Report on actions items due next meeting: 10 AM 9/18 CC F224-225