SESSION FOUR: OPTIMIZING ANNUAL LUNG CANCER SCREENING CT TO CHARACTERIZE CORONARY ARTERY CALCIFICATION (CAC) CLINICAL EVOLUTION

1 Clinical optimization of LCS CT for CAC theragnostics (8am-9am)

15-minute overview lecture: Dr Fay Lin
45-min panel discussion: Fay Lin, Matthijs Oudkerk, David Maron [Moderators: Tochi, Matt]

- What clinical parameters need to be collected (if any)?
  - Heart rate?
  - Height and weight?
  - Race/Ethnicity?
  - Medication list (e.g. statins, hormone replacement, beta blockers)?
  - Diabetes and HbA1c?
  - CAC change over time, adjusted for the above conditions?

- What are the necessary versus ideal technical parameters?
  - ECG-gated vs nongated
  - Standard vs low radiation dose
  - Thin (0.6 mm) vs thick (2.5 mm) slices
  - Agatston vs Volume vs Mass scores

- What are the barriers in reporting/accepting these findings?
  - Will the results be credible to care providers?
  - Do we know the significance of change over time for the above conditions?
  - Will Pulmonologists know how to manage CAC scores?
  - Will Pulmonologists be willing to refer patients to Cardiologists?

2 Reporting Non-Coronary Cardiac Findings in LCS CT (9am-10am)

15-minute overview lecture: Dr Morteza Naghavi
45-min panel discussion: Morteza Naghavi, Fay Lin, David Maron [Moderators: Matt, David Y]

- What non-coronary cardiac findings are currently routinely assessed and what are the most likely additional candidates?
    - Aortic and pulmonary artery sizes?
    - LA and RA sizes? LV and RV sizes?
    - Mediastinal fat? Epicardial fat?

- Major illnesses that can be predicted:
    - A-fib?
    - Stroke?
    - Heart failure?

- Risk prediction models or stand-alone imaging findings?

- What are the barriers in reporting/managing these findings?
    - How do we report the findings?
    - Effect of false positives on patient anxiety and referring physician confidence
    - Do referring providers want to know them?
    - Do patients want to know them?
    - Are there an established management protocols for asymptomatic subjects?

3 **Designing a Medicare Cardiac Controlled Observational Study**
15-minute overview lecture: Dr David Yankelevitz
45-min panel discussion: Bruce Pyenson, Morteza Naghavi, David Maron

- Are findings being acted upon?

- Current payment status for additional findings?

- With cardiac screening would we pick up the cases outside of lung screening guidelines?

- What should such a Coverage with Evidence Determination (CED) study demonstrate?

- How do we continue to update necessity of including additional finding?