## CT Physics and Radiation Dosimetry for Technologists

Jeffrey Yap, PhD Department of Imaging

## Outline

- Radiation Risks
  - BEIR VII
  - No threshold linear model
  - Brenner paper
- CT physics and acquisition parameters
- Methods for estimating patient dosimetry
- CT overexposure incidents and FDA warnings
- Dosimetry summary for DFCI CT procedures
  - Siemens Quad Zoom CT
  - Toshiba 64-slice Acquilion CT
  - Siemens Biograph-16 and GE Discovery ST-16 PET/CT