**Molecular Breast Imaging at Reduced Radiation Dose for Supplemental Screening in Mammographically Dense Breasts**

**CONCLUSION.** When added to screening mammography, MBI performed using a radiopharmaceutical activity acceptable for screening (effective dose 2.4 mSv) yielded a supplemental cancer detection rate of 8.8 per 1000 women with mammographically dense breasts.

To put into perspective a 2.4 mSv effective dose here is a comparison to other procedures, and annual background.

The "old" technology - single detector is what a lot of people reference when they think of MBI (BSGI).

Also know that we are very close to further dose reduction with a software algorithm.
Lastly consider this position statement from the American Association of Physicists in Medicine (AAPM).

Discussion of risks related to radiation dose from medical imaging procedures should be accompanied by acknowledgement of the benefits of the procedures. Risks of medical imaging at effective doses below 50 mSv for single procedures or 100 mSv for multiple procedures over short time periods are too low to be detectable and may be nonexistent. To represent this graphically:

MBI screening in women with dense breast tissue per the Mayo protocol is done every other year. So consider, a woman screened for 40 years (age 40-80) would get 20 MBIs maximum = 48 mSv.

If we get to a point of presentation with this group we'll try to include their radiation safety officer. This is usually very helpful in putting dose risk from medical procedures into perspective.