ASSOCIATION BETWEEN BONE MINERAL DENSITY AND INCIDENCE OF BREAST CANCER SOUTHERN ISRAEL POPULATION BASED STUDY. BEERSHEBA-1

Soroka Medical Center, Clalit Health Services, Beer-Sheba, Israel Progress report April 2013

Retrospective study on the association between bone mineral density (BMD) and

future risk of breast cancer

Study staff:

Endocrinology oncology, breast cancer unit and Soroka Clinical Research Center all at Soroka Medical Center (SMC), in collaboration with Dr. Larry Norton (MSKCC) and Dr. Ethel Siris (Columbia University) **Patients:** 15268 women who underwent bone mineral density (BMD) testing at SMC between 2003 and 2011.

<u>Conclusions</u> a higher BMD predicted a higher risk for future breast cancer.

<u>Presentations</u>: Oral presentation at the Israel endocrine and oncology meetings-2012-2013. Submitted to publication to Osteoporosis International Oct 2012-rejected Dec 2012 Submitted to PLOS1 early February 2013 – pending decision.

Fracture rates in Breast cancer patients are higher and occur at a higher BMD Study staff:

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15268 women who underwent bone mineral density (BMD) testing at SMC between 2003 and 2011. **Conclusions:** Breast cancer patients had higher rates of osteoporotic fractures and experienced them at higher BMD compared to women of same age group without breast cancer. We are now in the process of collecting data on breast cancer patients comparing those with and without osteoporotic fractures.

Presentations: Oral presentation at the Israel endocrine society meeting 2013.

Prospective study: Assessing BMD in patients with a new breast cancer diagnosis compared to controls

Study staff:

Endocrinology oncology, breast cancer unit and Soroka Clinical Research Center all at Soroka Medical Center (SMC), in collaboration with Dr. Larry Norton (MSKCC) and Dr. Ethel Siris (Columbia University) **Study population:** This is a case-control study which will compare BMD of women with newly diagnosed breast cancer with women who had a negative mammography treated at SMC.

<u>Study status:</u> IRB approval, recruitment started in April 2012. As of April 2013, 122 of 259 new breast cancer patients treated at SMC have agreed to join the study. Recruitment is ongoing and is expected to continue for the next 2 years.