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Development of patient-specific, patient-directed, patient-responsive treatment will improve patient outcomes and reduce healthcare costs in

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Most diagnostic and treatment decisions for breast - and other cancers - are made following anatomic assessment of the presence or absence of breast cancer using mammography, ultrasound, MRI, and CT. The use of such qualitative and semi-quantitative testing methods limit (1) our ability to accurately find breast cancer when present (sensitivity) and exclude it (specificity) when absent, and (2) our ability to determine treatment response.

Yes/no results from qualitative and semi-quantitative imaging have been utilized for decades and are currently being replaced with true quantification of differences in tissue, which is able to determine where on a Health Spectrum a patient lies [1], making it possible to find earlier transitional changes which may be responsive to treatments with fewer side-effects, as well as measure actual treatment results following the first round of treatment.

By being able to objectively measure treatment outcomes, patients will be able to tailor treatment based upon their actual response versus a hypothetical expected treatment outcome. Such an approach will reduce time required to achieve effective treatment, improving clinical outcomes and reducing costs by focusing only on treatments, which work for any given patient, including those with single-, double- or triple-receptor status; in addition to saving lives through patient-specific, patient-directed, patient-responsive treatment.

References:

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CONFLICT OF INTEREST: FMTVDM issued to first author.

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