MAKE AN IMPACT

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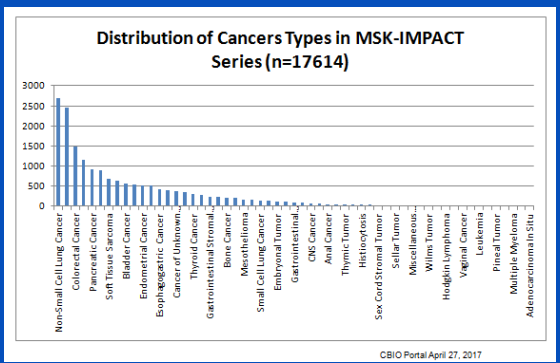
ABSTRACT

The "Make an IMPACT" initiative provides the opportunity for external patients with rare cancers to receive MSK-IMPACT testing. MSK-IMPACT is the largest academic molecular profiling initiative in the world, yet there remain a significant number of cancer types that have been sequenced fewer than 10 times, some sequenced only once.



OBJECTIVES

The primary purpose of this initiative is to understand the genomic drivers of extremely rare cancers; specifically Germ Cell Cancers, pediatric cancers, and hematologic malignancies, and to share findings with treating clinicians, worldwide. Existing but limited efforts to sequence rare tumor types have already lead to discovery of high rates of actionable mutations (i.e. BRAF V600 in Histiocytosis and TRK fusions in Mammary Analogue Secretory cancers)

METHODS

Utilizing IRB 12-245 as a consent source and leveraging social media as a primary referral source, the Clinical Research Administration (CRA) has implemented a standardized workflow to recruit, consent, and manage patients worldwide.

Non-MSKCC participants are recruited either via rare cancer support groups on social media or physician-to-physician referral.

Remote consent processes are completed and DNA materials (blood, saliva, nails, and tumor) are collected remotely (and even internationally). Through a streamlined workflow, these materials are delivered, accessioned, and sequenced at MSKCC.

Results are returned to patients and treating physicians within 2-6 weeks along with treatment and available trial suggestions.

RESULTS

60 non-MSKCC eligible participants consented from 4 continents. 43 of the consented participants have rare Germ Cell Tumors where previously, MSKCC only saw 4 diagnoses of these cases, annually. 10 participants are 10 years old or younger; the youngest participant enrolled was 1 years old.

29 patients have resulted IMPACT, 20 were found to have mutations (4 NED). Three patients were relatively local to MSKCC and therefore were referred here for care and 7 patients were referred for clinical trials/treatment modifications where they locally reside.

FUTURE DIRECTION

Continued fund raising via Cycle for Survival

Additional rare cancer outreach

Whole Genome Sequencing (Broad Institute Collaboration)