Welcome to the iCAN Science Seminar *Pan-cancer immunogenomic landscape of homologous recombination deficiency* by **Doga C Gulhan**, PhD, on June 13th at 14-15 (EEST).

The seminar is organized as a webinar only. Join us via the link:

https://helsinki.zoom.us/j/64804986682?pwd=ME8rOVhucnQ5YXE1VVdpck5BN25BZz09

Meeting ID: 648 0498 6682
Passcode: 366409

Doga Gulhan is a postdoctoral fellow at the Department of Biomedical Informatics at Harvard Medical School. She develops computational tools to decode patterns of mutations through signature analysis. The SigMA algorithm she developed enables the application of this technique in routine clinical genome sequencing with targeted panels. SigMA identifies the signature of homologous recombination deficiency and can be used to expand the patient population who may benefit from PARP inhibitors. Her recent work focuses on characterizing different types of genomic instability and constructing novel genomic biomarkers for targeted and immuno-therapies using liquid and solid biopsies.

For further information on the speaker, please see https://dbmi.hms.harvard.edu/people/doga-gulhan

The webinar is chaired by Anniina Färkkilä (anniina.farkkila@helsinki.fi).

Relevant publications:

Jin, Hu, Doga C. Gulhan, Daniel Ben-Isvy, David Geng, Viktor Ljungstrom, and Peter J. Park. "Accurate and sensitive mutational signature analysis with MuSiCal." *bioRxiv* (2022): 2022-04.

Batalini F, Gulhan DC, Mao V, Tran A, Polak M, Xiong N, Tayob N, Tung N, Winer EP, Mayer EL, Knappskog S, Mayer EL, Lønning PE, Matulonis UA, Konstantinopoulos PA, Solit DB, Won HH, Eikesdal HP, Park PJ†, Wulf GM† Mutational signature 3 detected from clinical panel sequencing is associated with responses to olaparib in breast and ovarian cancers. *Clin Cancer Res.* CCR-22-0749 (2022).

Färkkilä A, Gulhan DC, Casado J, Jacobson CA, Nguyen H, Kochupurakkal B, Maliga Z, Yapp C, Chen YA, Schapiro D, Zhou Y, Graham JR, Dezube BJ, Munster P, Santagata S, Garcia E, Rodig S, Lako A, Chowdhury D, Shapiro GI, Matulonis UA, Park PJ, Hautaniemi S, Sorger PK, Swisher EM, D'Andrea AD, Konstantinopoulos PA. Immunogenomic profiling determines responses to combined PARP and PD-1 inhibition in ovarian cancer. Nat Commun. 2020 Mar 19;11(1):1459.

Gulhan, Doga C., et al. "Detecting the mutational signature of homologous recombination deficiency in clinical samples." *Nature genetics* 51.5 (2019): 912-919.