

# Case presentations

# Case 1

# Case 1

- 77 year old female patient diagnosed in 6/2012 with right sided T3N1 colon cancer
  - Resection and adjuvant Capecitabine
- 1/2014 had rising CEA and several pelvic and intraabdominal metastasis
  - 5FU/ bevacizumab until 2016 had progression
  - FOLFOX/ Bev from 2/2016 until 6/2016 with very good response
  - **Developed allergic reaction to oxaliplatin**
  - Started on FOLFIRI / Bev 7/2016
  - 11/2017 progression – tested for **KRAS found to be wildtype** started on FOLFIRI Cetuximab
  - Progression in 6/2018- started on Lonsurf
  - Progressed on 8/2018
- ECOG PS 1
- Imaging- multiple liver, lung and peritoneal lesions

# Case 1

- Next step(s)
  - Re-challenge with FOLFOX Bev (de-sensitization)
  - Regorafenib
  - Clinical trial
  - Other therapeutic options
  - Other testing

## Companion Diagnostic (CDx) Associated Findings

### GENOMIC FINDINGS DETECTED

**KRAS** wildtype (codons 12 & 13)

**KRAS/NRAS**

wildtype (codons 12, 13, 59, 61, 117, & 146 in exons 2, 3, & 4)

### RECOMMENDED THERAPEUTIC OPTIONS

Erbitux® (Cetuximab)

Vectibix® (Panitumumab)

### OTHER ALTERATIONS & BIOMARKERS IDENTIFIED

Results reported in this section are not prescriptive or conclusive for labeled use of any specific therapeutic product. See professional services section for additional information.

*Microsatellite status* MSI-High §

*Tumor Mutational Burden* 78 Muts/Mb §

**ASXL1** G645fs\*58

**ATR** ATR(NM\_001184) inversion intron 34 - intron 35 §

**BRAF** V600E

**CDH1** P126fs\*89

**CDH1** P127fs\*41

**CDH1** R598\*

**DNMT3A** R882H

**FAM123B** G171fs\*38

**GNAS** R201H

**HNF1A** P291fs\*51

**MLL2** P998fs\*2

**MSH3** K383fs\*32

**PIK3R1** L161fs\*6

**QKI** K134fs\*14

**RBM10** R186\*

**RNF43** G659fs\*41

**SOX9** Y297fs\*281

**SUFU** P32fs\*64

**TBX3** A617T

**TET2** P929fs\*4

**TSC2** splice site 138+1G>A

# Case 1

- Next step (s)
  - Stay the course
  - Pembrolizumab
  - Nivolumab
  - Nivolumab/ Ipilimumab
  - Other therapy
  - Other testing – formal genetic counseling

# Case 2

# Case 2

- 70 year old male patient presented with vague upper abdominal and back pain 1/2017
  - Conservative management no improvement
  - EGD, colonoscopy negative
  - CT scan pancreatic mass
  - EUS biopsy adenocarcinoma
  - CA19-9: 967
- ECOG PS 1
- Family history
  - Mother had breast cancer at 42 and colon at 55, then a second breast cancer at 72
  - Mother has 6 siblings no cancer
  - Extended family history unknown
  - Ancestry: Father –Russian, Mother –Romanian. Ashkenazi Jewish on both sides



# Case 2

- Imaging-
  - Pancreatic mass 3 by 2.9
  - Encases SMA
  - 180 degrees interface with celiac trunk and common hepatic artery and portal SMV confluence
  - Peroneal nodule 1.7 X 1.3 cm
  - Necrotic aorto-caval lymph node 1.7 X 1.6 cm

# Case 2

- Next Step
  - a) Surgery
  - b) Chemotherapy
    - a) FOLFIRINOX
    - b) Gemcitabine nab-paclitaxel
  - c) Genetic counseling
  - d) Molecular profiling of tumor

# Case 2

- Genetic testing
- Somatic mutations for
  - BRCA1 gene
  - MSH6 gene

# Case 2

- Next Step
  - a) Platinum-based chemotherapy
  - b) Gemcitabine nab-paclitaxel
  - c) Pembrolizumab
  - d) PARP inhibitor
  - e) Other

# Case 2

- Started on pembrolizumab
  - Ca19-9 decreased from 1134 (4/17/2018) to 11 (7/25/2018)
  - Scan resolution of necrotic lymph node and peritoneal nodule, decrease size of pancreatic mass
- Duration of therapy?