LUNG CANCER UPDATES
AACR HIGHLIGHTS
14-18 ABRIL 2018, CHICAGO

# Tratamiento con inmunoterapia neoadyuvante


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Con el patrocinio de
Bristol-Myers Squibb

Iniciativa científica de:
GECP
Grupo Español de Cáncer de Pulmón
Spanish Lung Cancer Group

ORIGINAL ARTICLE

# Neoadjuvant PD-1 Blockade in Resectable Lung Cancer

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# Rationale for neoadjuvant anti-PD-1

- Anti-PD-1/L1 induces durable responses in 15-20% of patients with metastatic lung cancer.
- Hypothesis: Neoadjuvant anti-PD-1 treatment may turn the in-place tumor into an “auto-vaccine”, thereby inducing anti-tumor immune responses that migrate through the body seeking out the micro-metastases that will ultimate cause cancer relapse.

**Prof of principle for cancer “interception”**

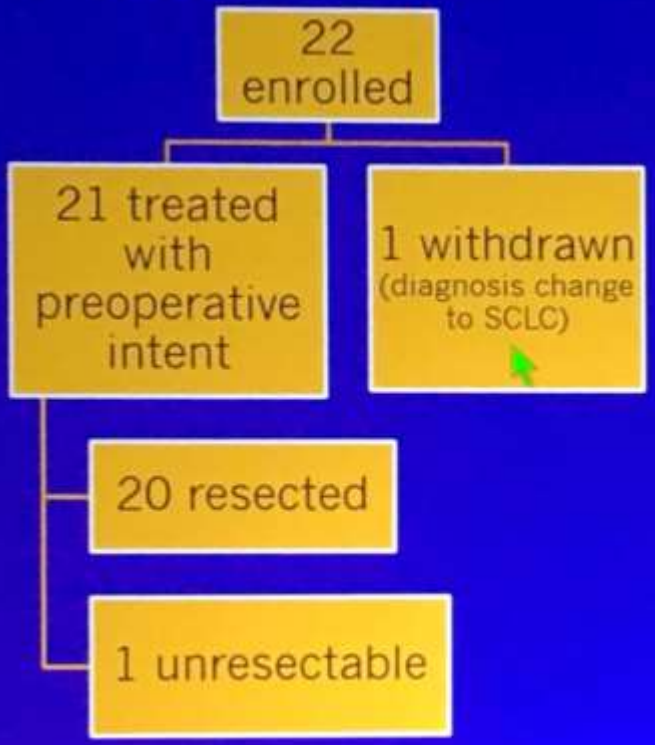
## Study Endpoints

- Primary: Sfety & feasibility
  - Drug-related adverse
  - Feasibility of resection without extended delays (>37 days from pre-planned date of surgery)

- Exploratory Endpoints
  - Pathologic response (MPR with neoadjuvant chemo improved recurrence-free and overall survival
  - Define genomic predictors of response
  - Immunologic evidence for induction of systemic anti-tumor T cell response

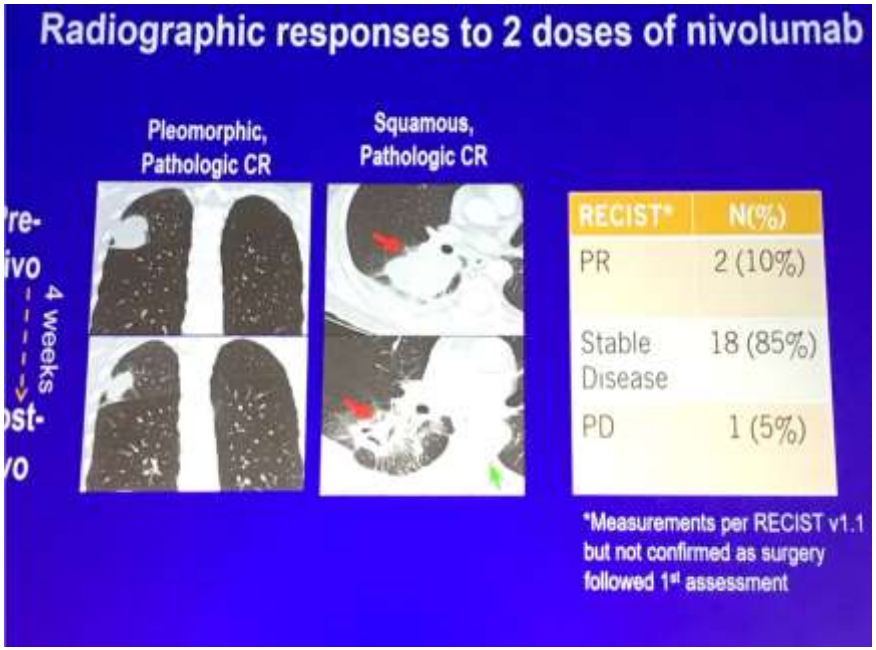
# Patients

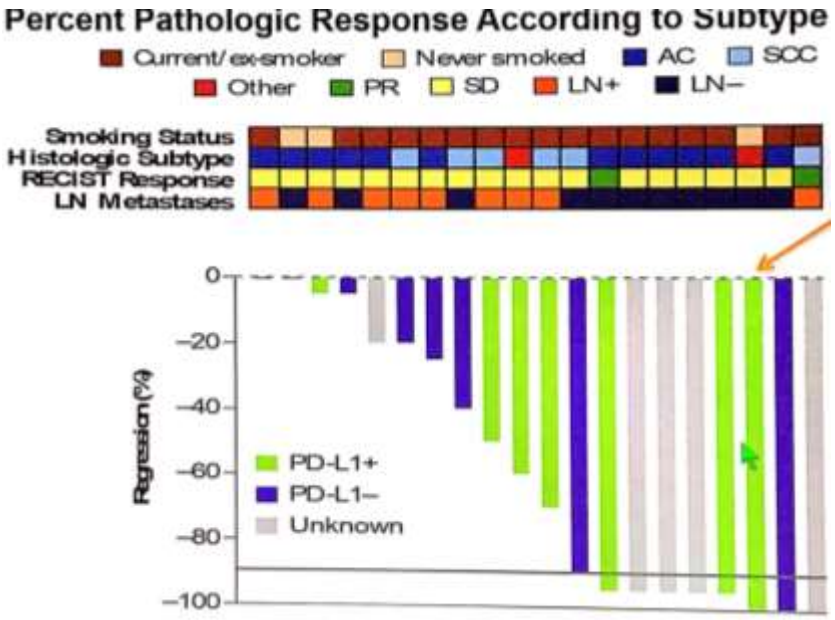





| Characteristics | N=21 |
|---|---|
| Age – yrs, median (range) | 67 (55-84) |
| Male/Female | 10/11 |
| Adenocarcinoma | 13 |
| Pleomorphic carcinoma | 2 |
| Squamous | 6 |
| Clinical Stage (AJCC 7th ed) | |
| IA/IB | 4 |
| IIA | 5 |
| IIB | 5 |
| IIIA | 7 |
| Smoking status | |
| Never | 3 |
| Former/Current | 18 |

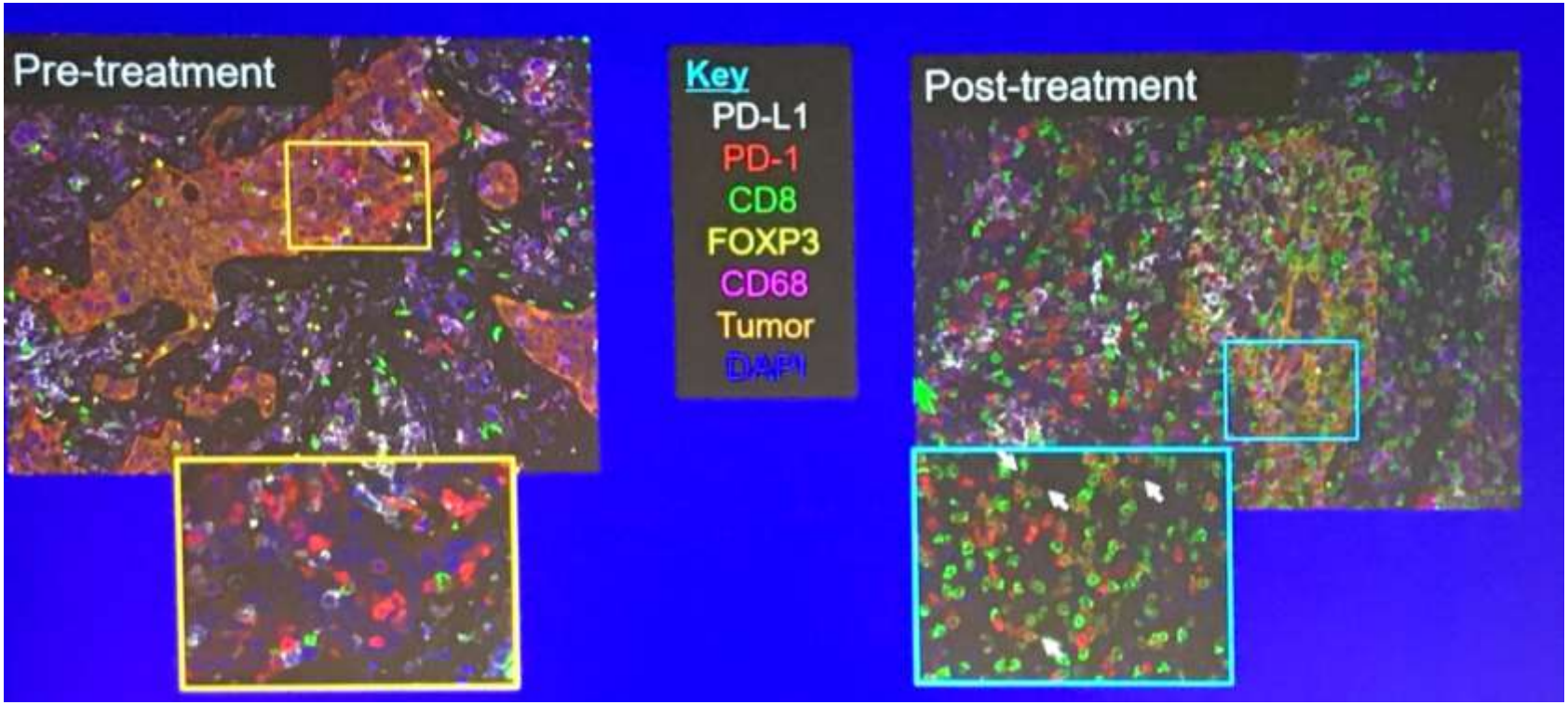
- Safe administration of two cycles of nivolumab
- Modest activity by RECIST (10% PR) BUT impressive activity by MPR (9/20, 45%)



# Multiplexed immunofluorescence shows post-treatment influx of CD8+ T-cells






Tricia Cottrell and Janis Taube –LB-154/21

# T cells specific for a dominant mutation-associated neoantigen (MANA) expand in peripheral blood upon neoadjuvant treatment with nivolumab