AATS | Thoracic Surgery Oncology Group

A joint venture between AATS and Memorial Sloan Kettering Cancer Center

General Thoracic Surgery Club Virtual Meeting, March 2021

David R. Jones MD
Professor & Chief, Thoracic Surgery Service
Fiona & Stanley Druckenmiller Chair in Lung Cancer Research
Co-Director, Druckenmiller Center for Lung Cancer Research
Memorial Sloan Kettering Cancer Center

Memorial Sloan Kettering Cancer Center

AATS Thoracic Surgery Oncology Group

A joint venture between AATS and Memorial Sloan Kettering Cancer Center

Disclosures

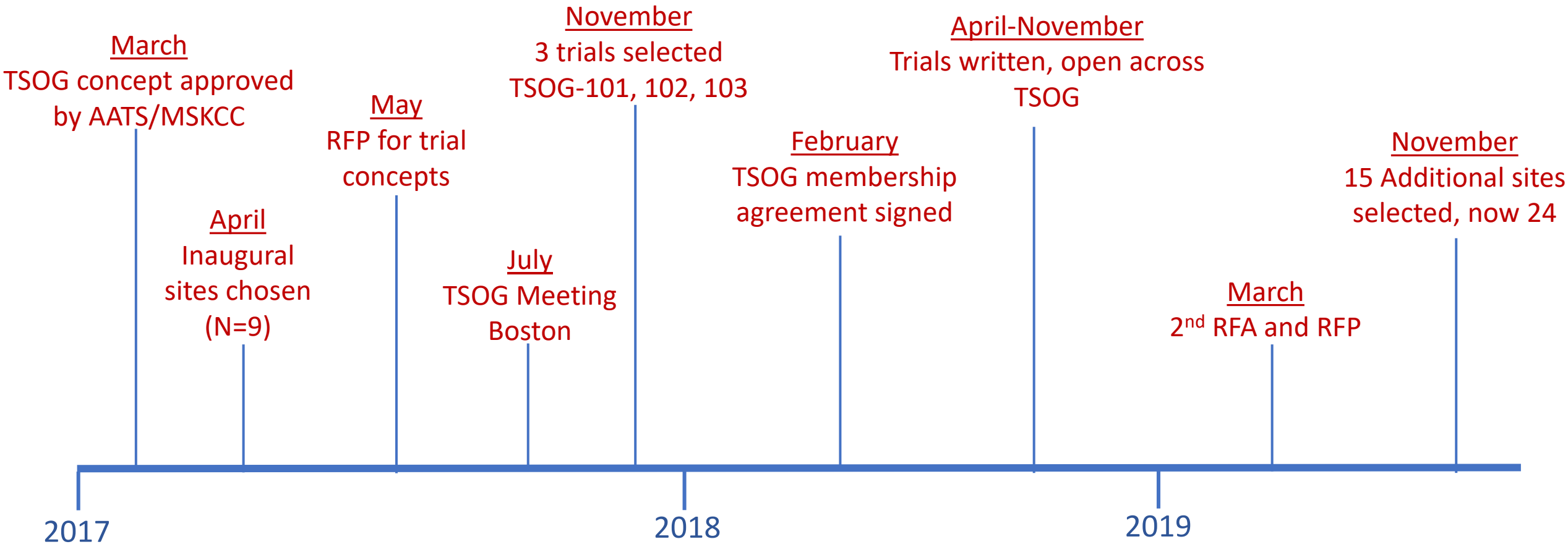
Merck - clinical trial steering committee
AstraZeneca – consultant, advisory committee

Thoracic Surgery Oncology Group

AATS

A joint venture between AATS and Memorial Sloan Kettering Cancer Center

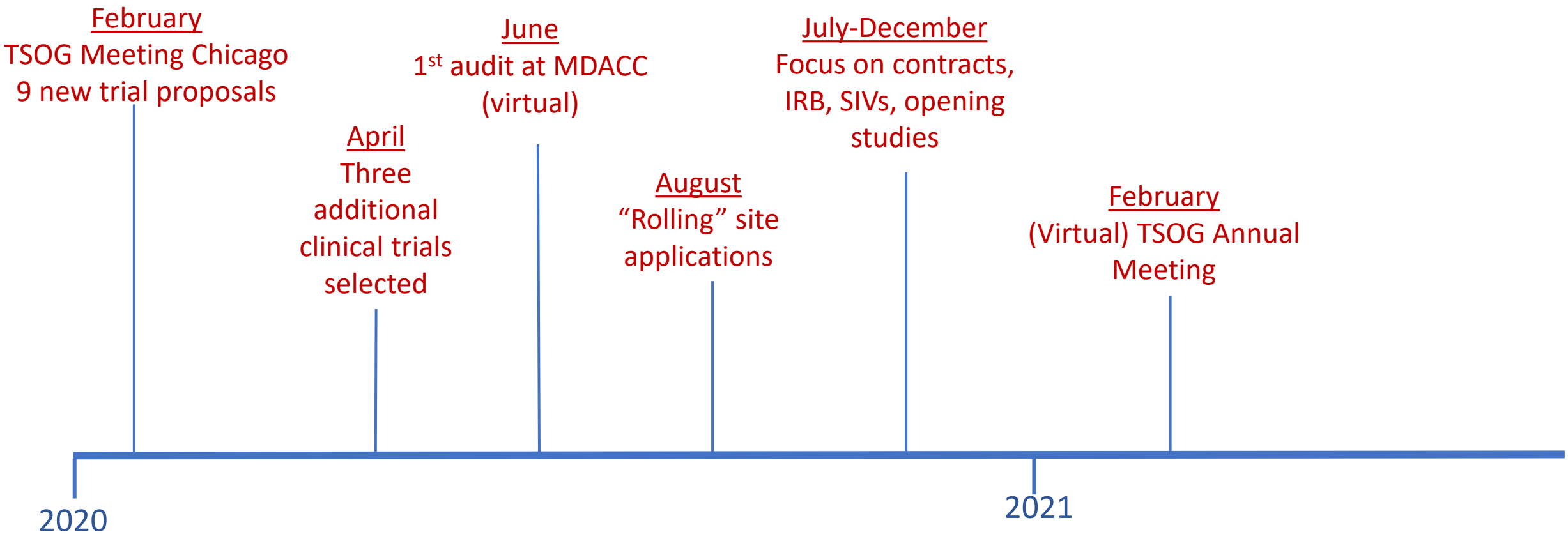
TSOG Timeline



AATS Thoracic Surgery Oncology Group

A joint venture between AATS and Memorial Sloan Kettering Cancer Center

TSOG Timeline



Memorial Sloan Kettering Cancer Center

AATS Thoracic Surgery Oncology Group

A joint venture between AATS and Memorial Sloan Kettering Cancer Center

Current TSOG Clinical Trials

AATS Thoracic Surgery Oncology Group

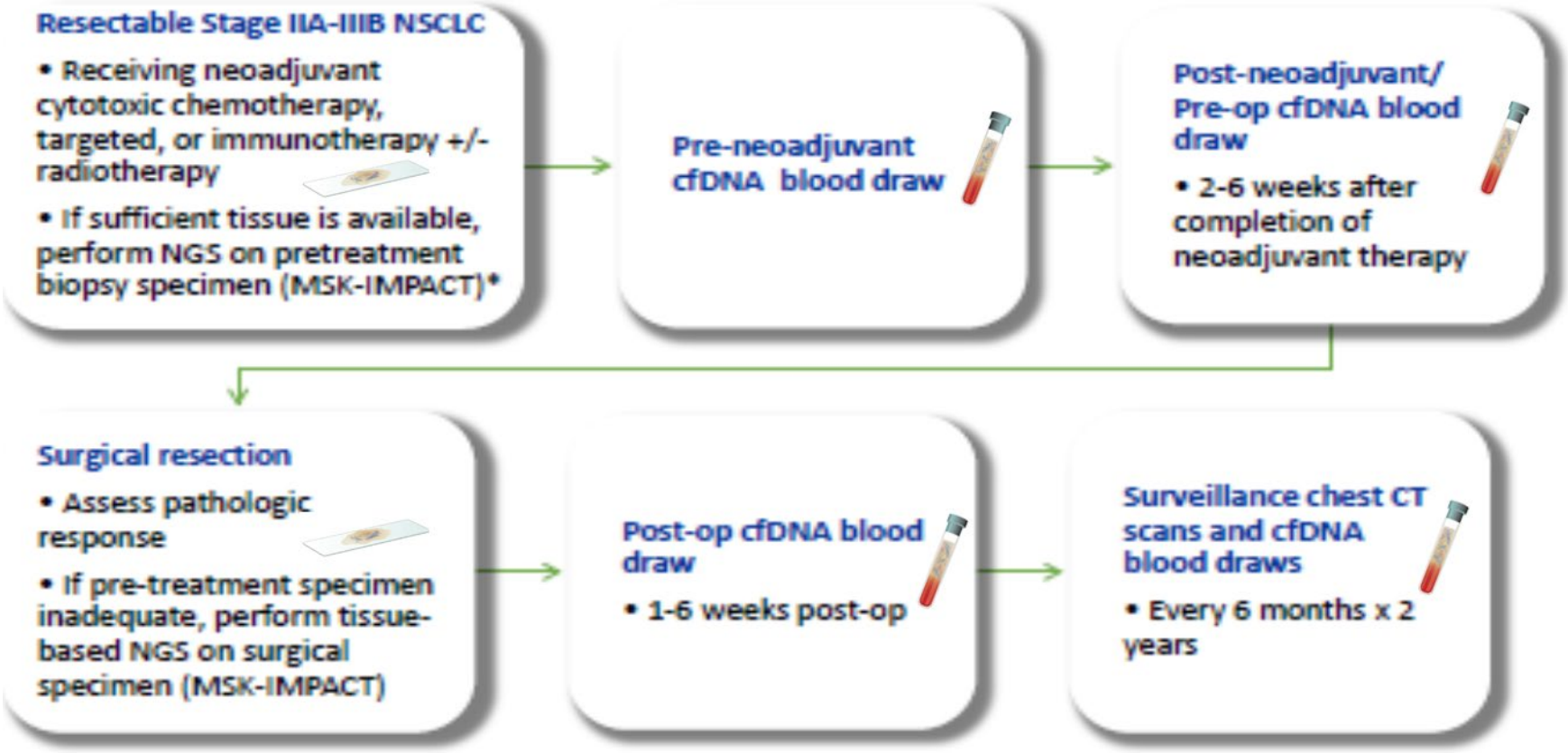
A joint venture between AATS and Memorial Sloan Kettering Cancer Center

TSOG 101

PI: James M. Isbell, MD, MSCI

Concept:

A valid biomarker is needed to assess for treatment response and the presence of minimal residual disease (MRD) in patients undergoing curative-intent treatment for NSCLC



Hypotheses:

- The percentage change in ctDNA variant allele fractions (VAF) before and after neoadjuvant therapy will correlate with pathological response.
- The VAF after complete surgical resection will predict recurrence, disease-free survival and overall survival.

Eligibility Criteria:

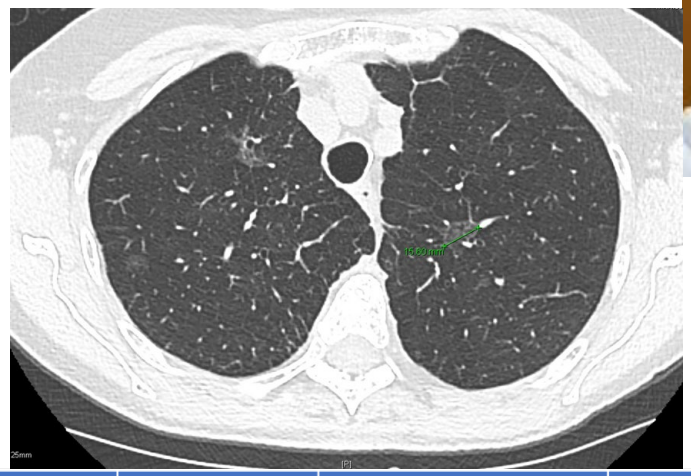
- Resectable and operable stage IIA-IIIB NSCLC
- Undergoing (any) neoadjuvant cytotoxic, targeted or checkpoint inhibitor therapy with or without radiotherapy

AATS Thoracic Surgery Oncology Group

A joint venture between AATS and Memorial Sloan Kettering Cancer Center

TSOG 102

PI: James Huang, MD



Study Design:

- Patients with ≥ 2 GGO
- Each lesion tracked
  - CT scan every 6 mo
  - Progression defined as:
    - Growth ≥ 50% over baseline
    - Increase solid component > 50%
- At progression:
  - Intervention (biopsy or resection)
  - Discretion of treating clinician
- Surveillance on protocol for 5 years

Eligibility:

- Inclusion Criteria
  - Age ≥18 years
  - ≥ 2 GGO
- Exclusion Criteria
  - GGO > 3cm
  - GGO > 50% solid
    - (Consolidation/Tumor Ratio > 0.5)
  - Prior history of lung cancer > stage IA

Site	Activation Date	PI	New	Last Consent	Total
MSK	01/2019	Huang	7	2/10/21	53
MDACC	07/2019	Antonoff	0	2/18/20	10
CHUM	08/2019	Liberman	1	12/11/20	11
Wash U	10/2019	Kozower	2	2/16/21	6
U Mich	08/2020	Lin	2	2/5/21	3
BWH	09/2020	Rochefort	4	2/3/21	5
McMaster	11/2020	Shargall	0	-	0
U Toronto	11/2020	Donahoe	0	-	0
Mass Gen	11/2020	Lanuti	1	2/19/21	2
Allegheny	11/2020	Weksler	0	-	0
Baylor	12/2020	Carrott	0	-	0
Total			15		90

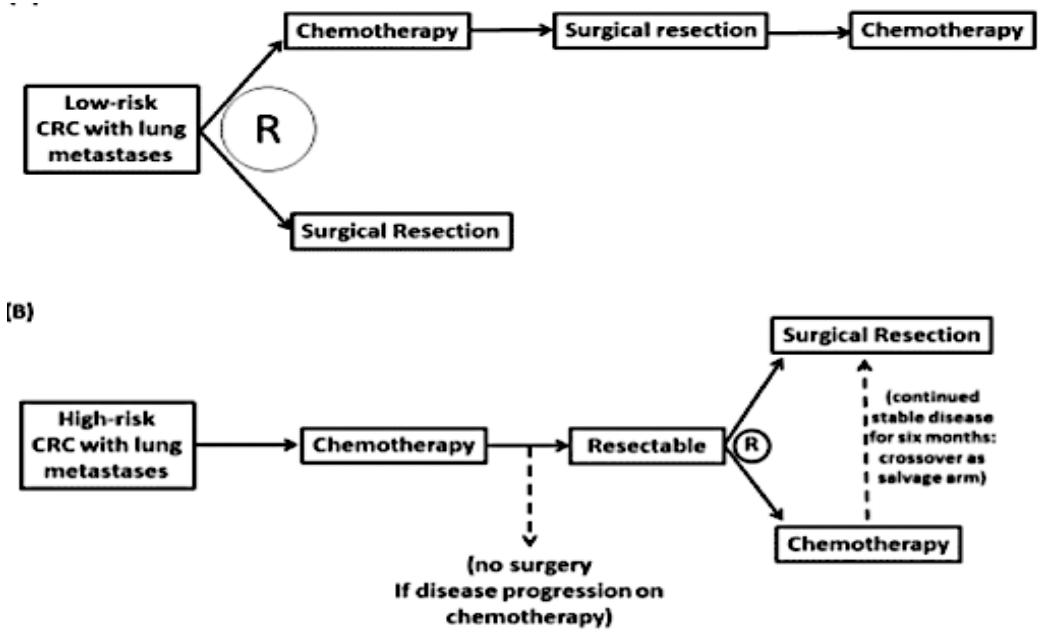
Thoracic Surgery Oncology Group

AATS

A joint venture between AATS and Memorial Sloan Kettering Cancer Center

TSOG 103

PI: Mara Antonoff, MD



Stratification of lung-limited mCRC by risk group

Risk group	DFI (months)		Number of metastases
LOW	≥ 12	AND	≤ 3
*INTERMEDIATE**	*6-12*	*OR*	*4-6*
HIGH	< 6	OR	>6

**Intermediate group is not eligible for enrollment at this time*

The role of multimodality management in risk-stratified patients with lung limited metastatic colorectal cancer

- Primary objectives:
  1. To compare progression-free survival in patients with "low-risk" lung-limited mCRC undergoing pulmonary metastasectomy with or without perioperative chemotherapy.
  2. To compare overall survival in patients with "high-risk" lung-limited mCRC receiving systemic chemotherapy with or without surgical resection.
- Exploratory objective *(optional)*:
  - To evaluate for changes in circulating tumor DNA following surgical resection and/or systemic chemotherapy in patients with lung-limited mCRC.

Accrual status: 20 active patients

Study is open at MDACC, Wash U, CHUM, B&W, and UHN

Overall Accrual Status for TSOG Protocols

AATS Thoracic Surgery Oncology Group
A joint venture between AATS and Memorial Sloan Kettering Cancer Center

Updates	TSOG 101 ctDNA Trial	TSOG 102 GGO Trial	TSOG 103 Colorectal Mets Trial
Numbers Enrolled	55 active patients	90 active patients	20 active patients
Sites Open	8	11	5
Target Accrual	120	330	300
Sites Accruing	MSK, Wash U, B&W	MSK, MDACC, CHUM, Wash U, B&W, U-M, MGH	MDACC, UHN
Highest Accruing Sites 2020	MSKCC	MSKCC	MDACC

Memorial Sloan Kettering Cancer Center

Thoracic Surgery Oncology Group

AATS

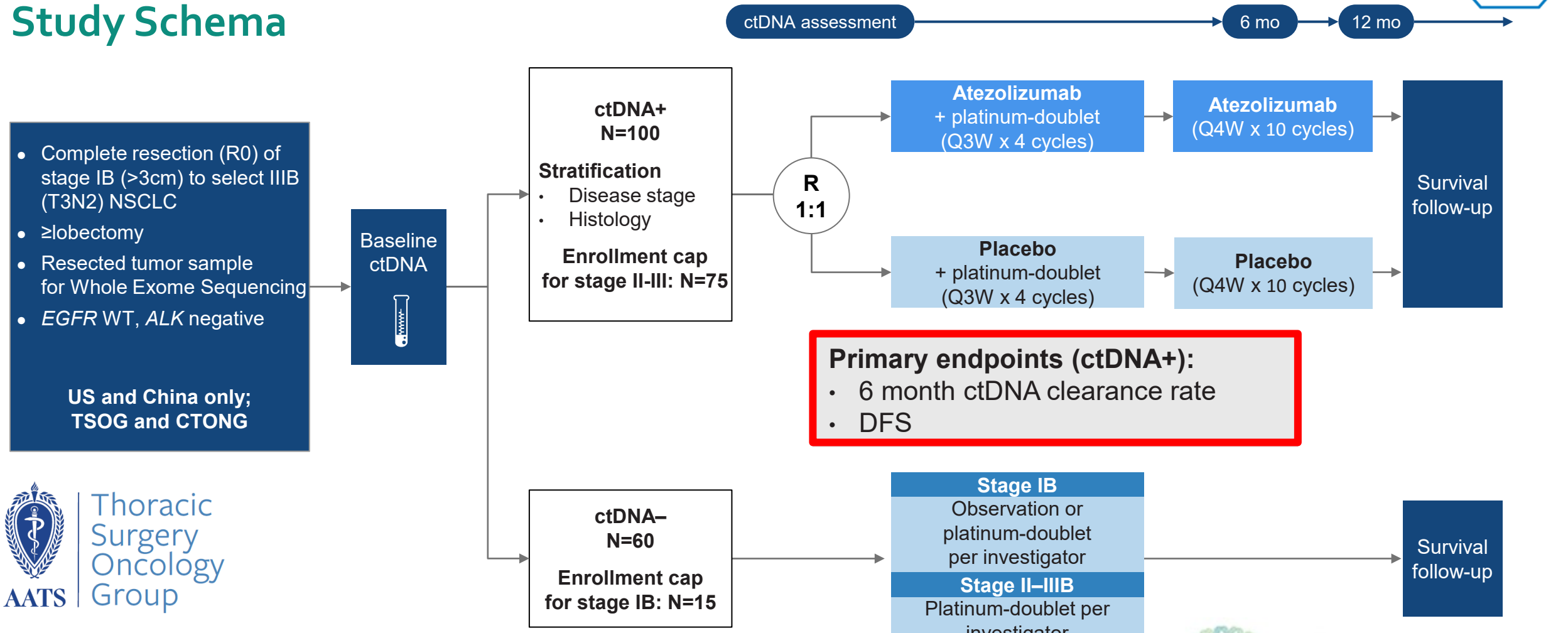
A joint venture between AATS and Memorial Sloan Kettering Cancer Center

New TSOG Clinical Trials Opening in 2021

TSOG-104: ctDNA MRD guided adjuvant therapy RCT (CATHAYA)

Roche

Study Schema



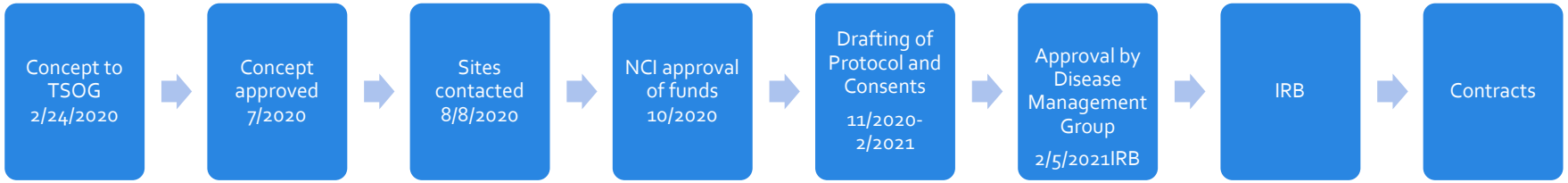
AATS Thoracic Surgery Oncology Group

Chinese Thoracic Oncology Group

CATHAYA YO41867

TSOG-105: Blinded Prospective Validation Trial of Pleural Effusion FBLN3 as a Specific Biomarker of Malignant Pleural Mesothelioma

PI: Harvey Pass, MD



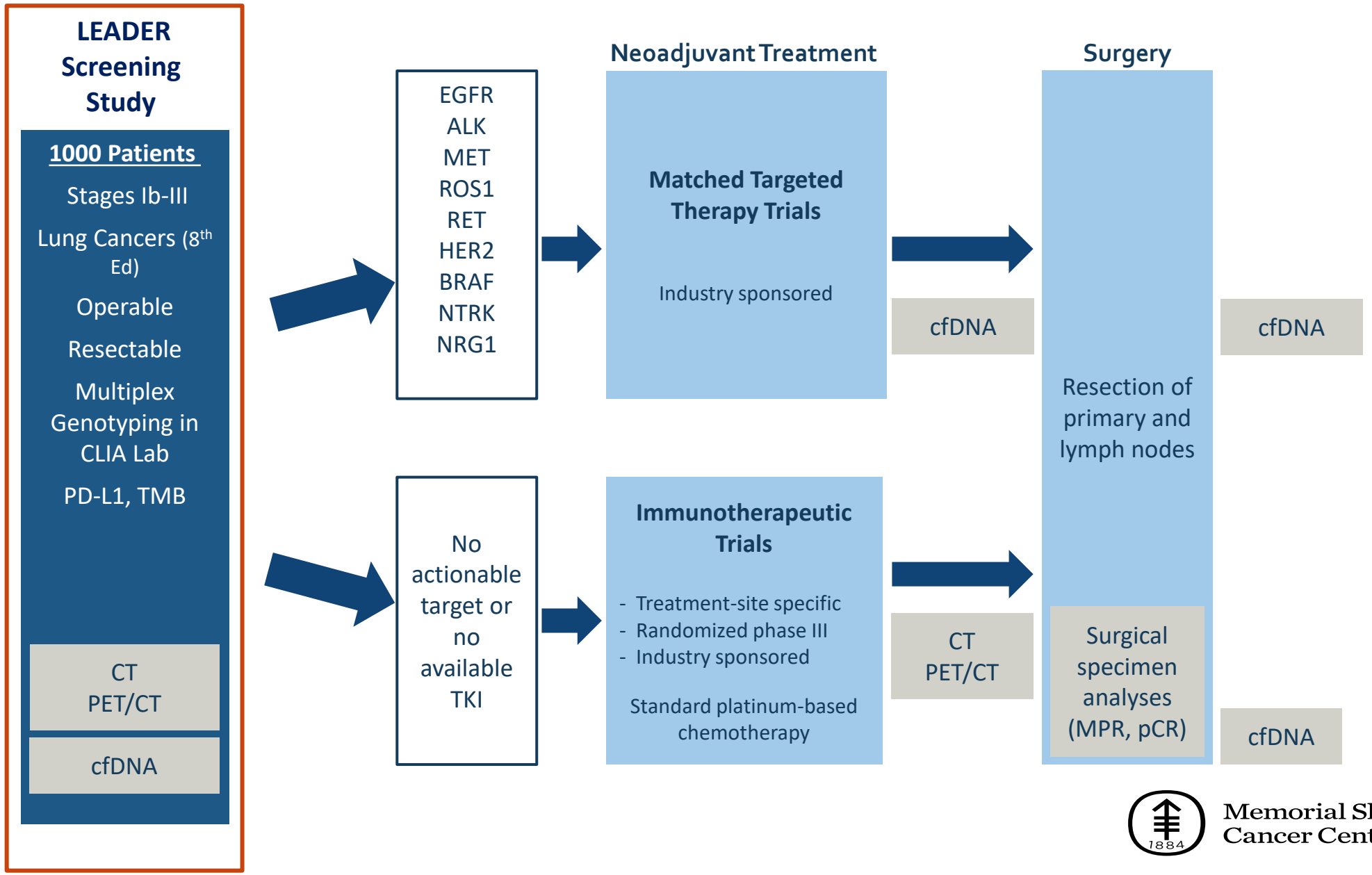
- **Hypothesis:** FBLN3 is differentially overexpressed in MPM compared to other malignancies that present as pleural effusions
- **Specific Aim 1:** Prospectively collect pleural effusion from newly diagnosed or treated patients with pleural effusions
  - **1.1** This will also establish a national reference collection of pleural effusion collected under standard SOPs known as the TSOG Effusion Archive
- **Specific Aim 2:** Measure FBLN3 levels in de-identified, blinded prospectively collected specimens using the mab428.2 ELISA in the NYU Thoracic Surgery Laboratory
- **Specific Aim 3:** Unblind levels of FBLN3, construct ROC curves for pleural effusion for MPM vs other
  - **3.1** Establish cut-offs if possible for FBLN3 level separation

TSOG Participating Centers

- New York University
- Brigham & Women's
- Baylor University
- Duke University
- University of Toronto
- Memorial Sloan Kettering Cancer Center

Memorial Sloan Kettering Cancer Center

LCMC4 Evaluation of Actionable Drivers in EaRly Stage Lung Cancer (LEADER)



Memorial Sloan Kettering Cancer Center

AATS Thoracic Surgery Oncology Group

A joint venture between AATS and Memorial Sloan Kettering Cancer Center

TSOG 2021

- Significant movement in 2020Q3/4 in opening trials at sites
- Concomitant increases in accrual, not yet optimal
- Really need surgeon champions at sites to facilitate accrual
- New trials (N=3) poised to open in 2021
  - NIH sponsored study with correlatives for mesothelioma
  - Industry sponsored trial of ctDNA directed adjuvant therapy in lung cancer – also first international trial for TSOG
  - Collaborative effort with LCMC and LCRF on neoadjuvant targeted therapy in resectable NSCLC with oncogenic drivers
- TSOG portfolio of trials at six in 2021 – very balanced and achievable
- Faster integration of multidisciplinary trials than expected
- More sites interested in joining TSOG (N=30 by end of 2021)

AATS | Thoracic Surgery Oncology Group

A joint venture between AATS and Memorial Sloan Kettering Cancer Center

David R. Jones MD
Chair, TSOG

Executive Committee
Ara Vaporciyan MD
Raphael Bueno MD
David Harpole MD

Coordinator: Maria Singh (singhm1@mskcc.org)