NCI Small Cell Lung Cancer Consortium

State of the state

2018

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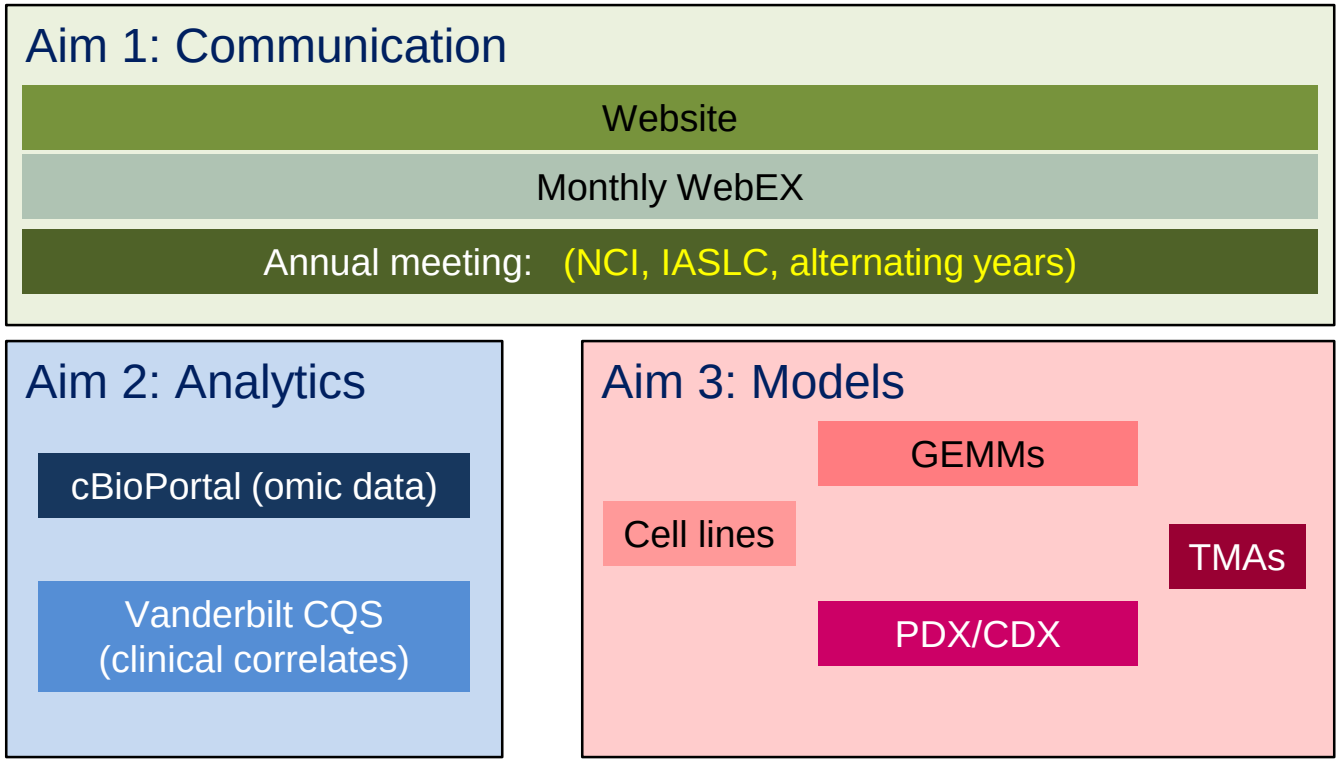
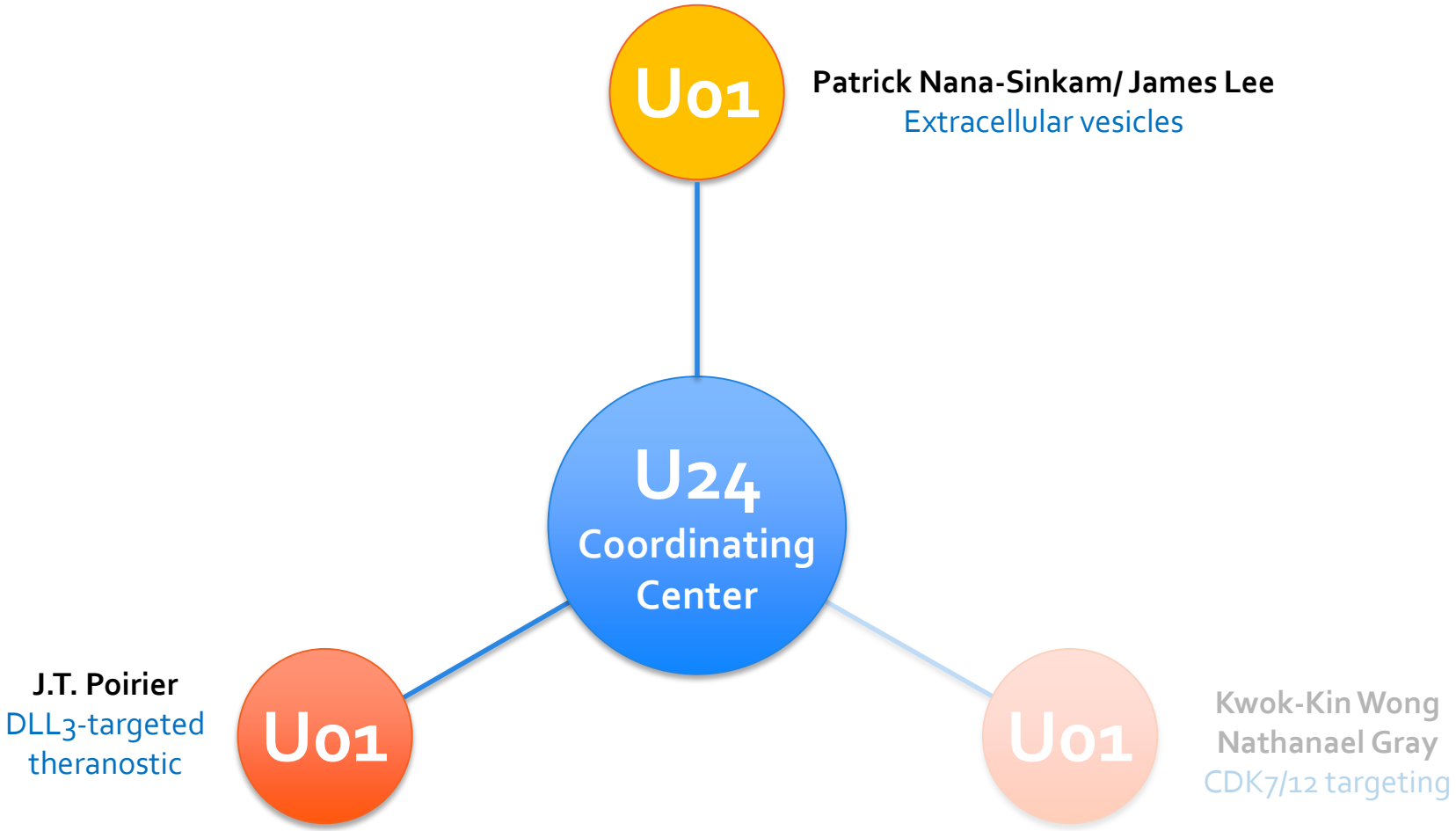
Memorial Sloan Kettering Cancer Center

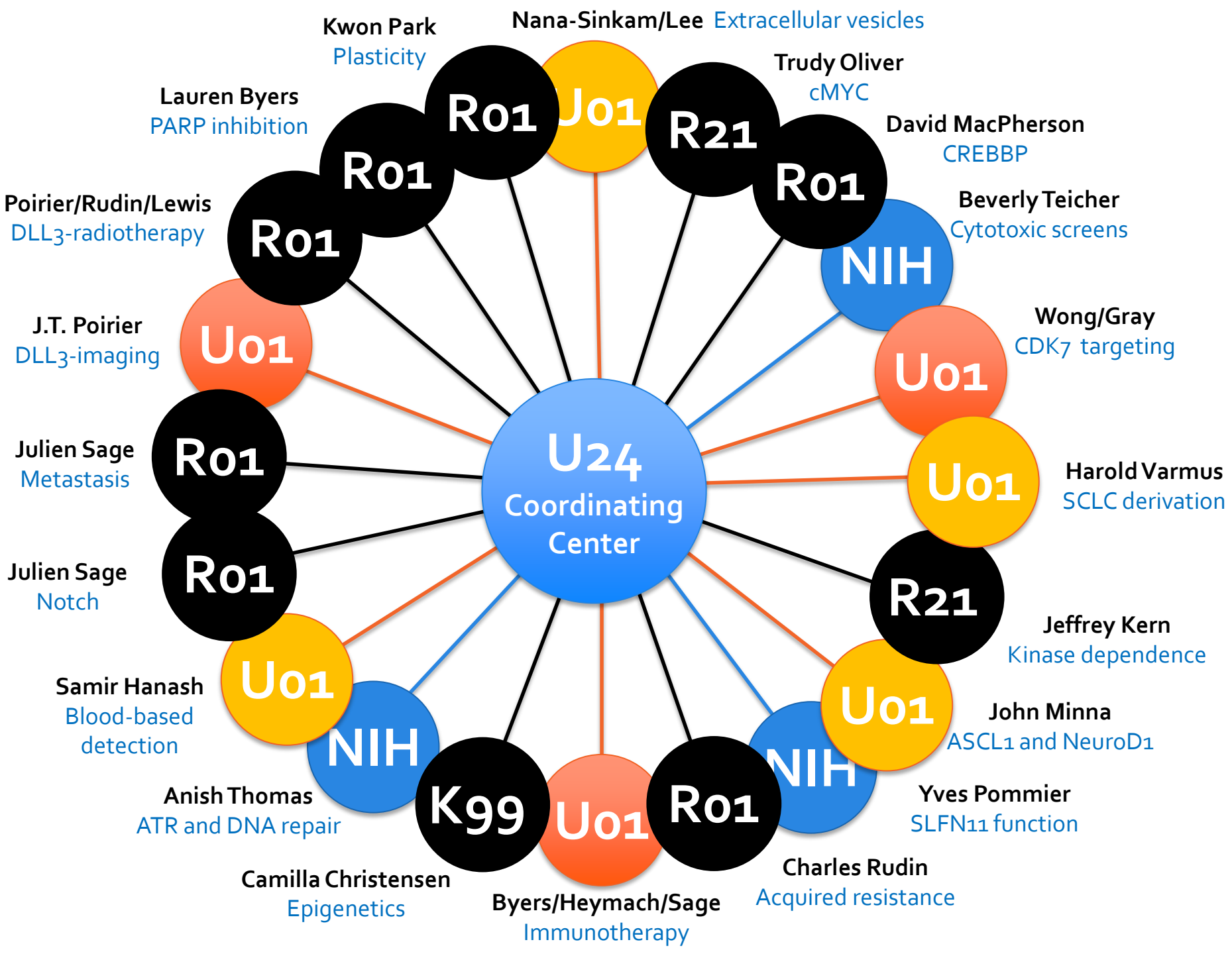
Goals of the Center

- Facilitation of data exchange and meetings among investigators
- Centralized database support for SCLC research
- Characterization of and access to relevant preclinical models

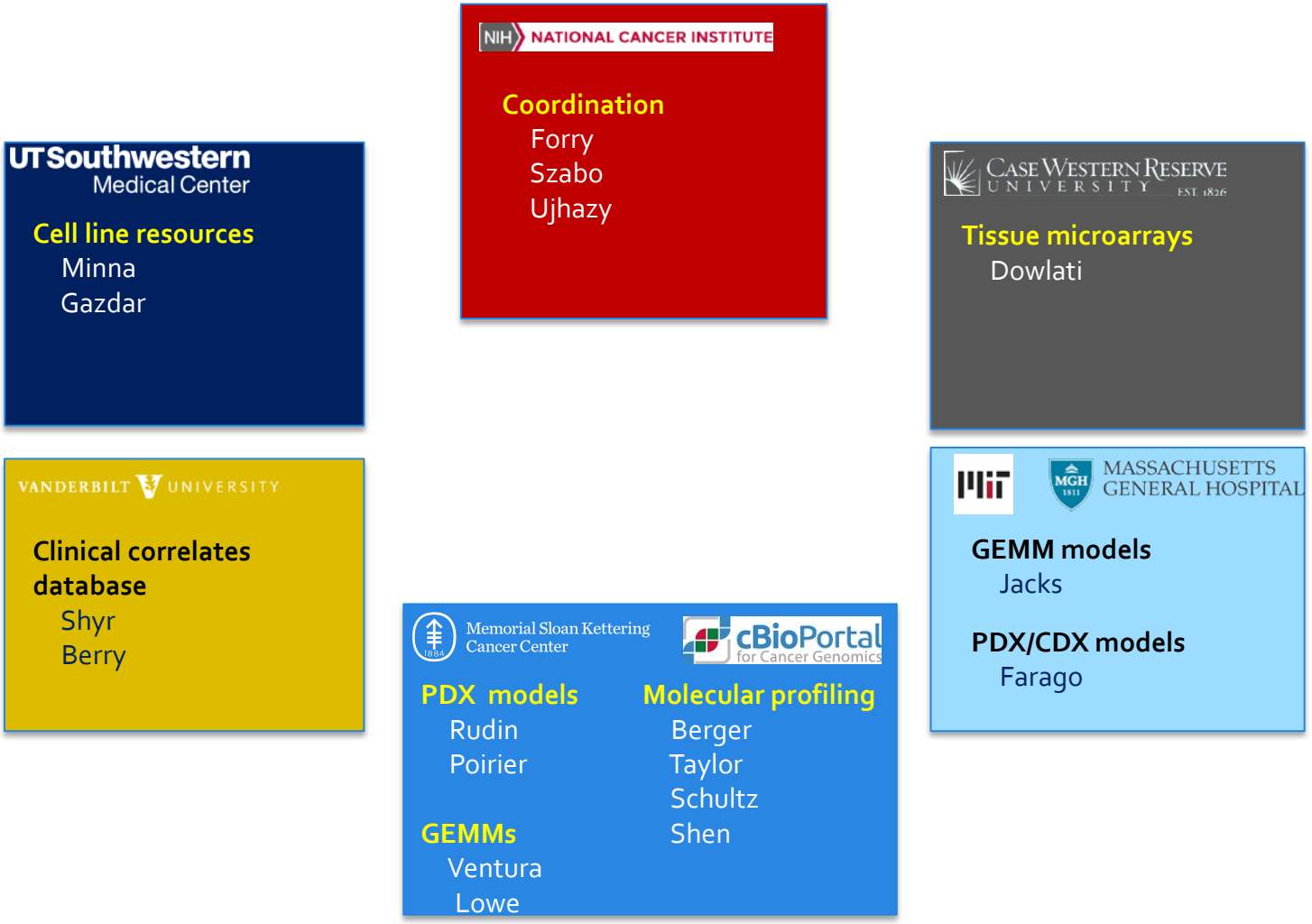


NCI SCLC "Consortium"



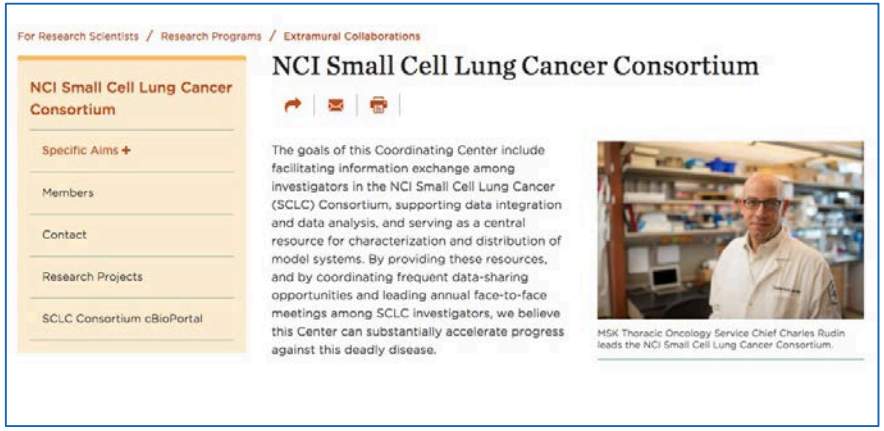

U24
Coordinating Center
Kwon Park
Plasticity
R01
Nana-Sinkam/Lee Extracellular vesicles
U01
Trudy Oliver
cMYC
R21
Lauren Byers
PARP inhibition
R01
David MacPherson
CREBBP
R01
Poirier/Rudin/Lewis
DLL3-radiotherapy
R01
Beverly Teicher
Cytotoxic screens
NIH
J.T. Poirier
DLL3-imaging
U01
Wong/Gray
CDK7 targeting
U01
Julien Sage
Metastasis
R01
Harold Varmus
SCLC derivation
U01
Julien Sage
Notch
R01
R21
Jeffrey Kern
Kinase dependence
Samir Hanash
Blood-based detection
U01
U01
John Minna
ASCL1 and NeuroD1
NIH
NIH
Anish Thomas
ATR and DNA repair
K99
U01
R01
Yves Pommier
SLFN11 function
Camilla Christensen
Epigenetics
Byers/Heymach/Sage
Immunotherapy
Charles Rudin
Acquired resistance

Components of the U24 Coordinating Center



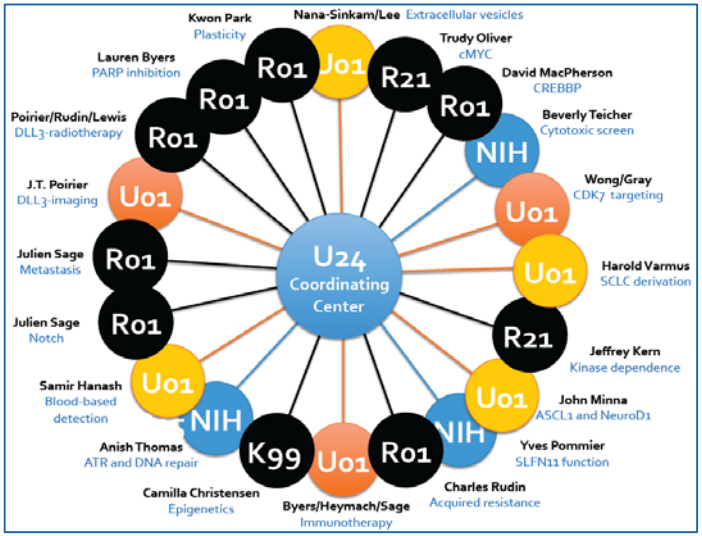
Aim 1: Communication

1. Website

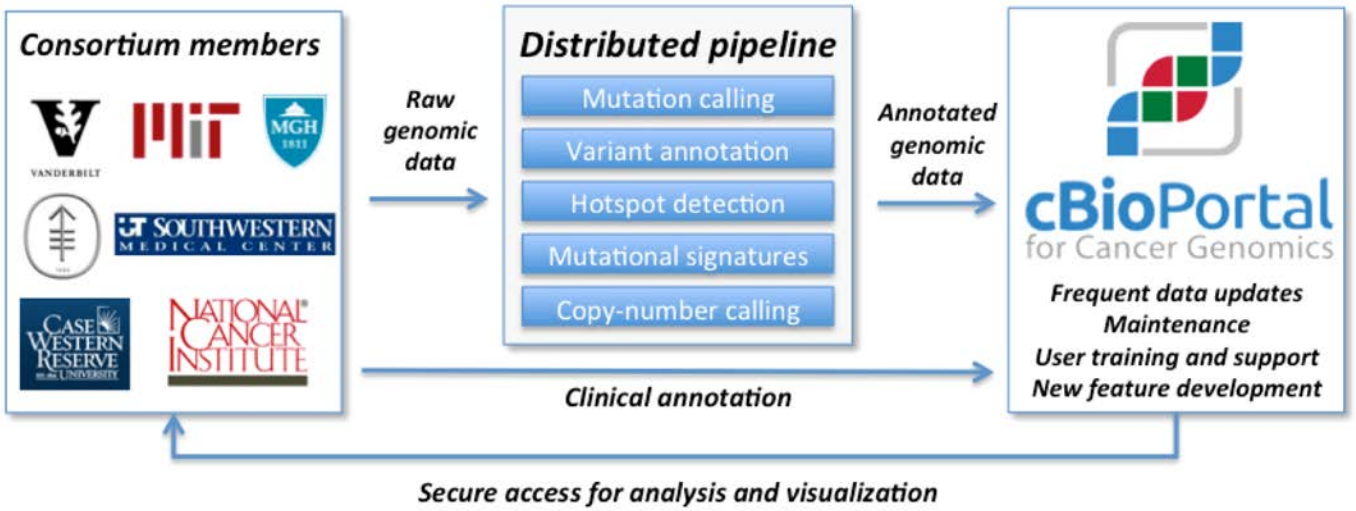


2. Annual meeting

3. Monthly WebEx

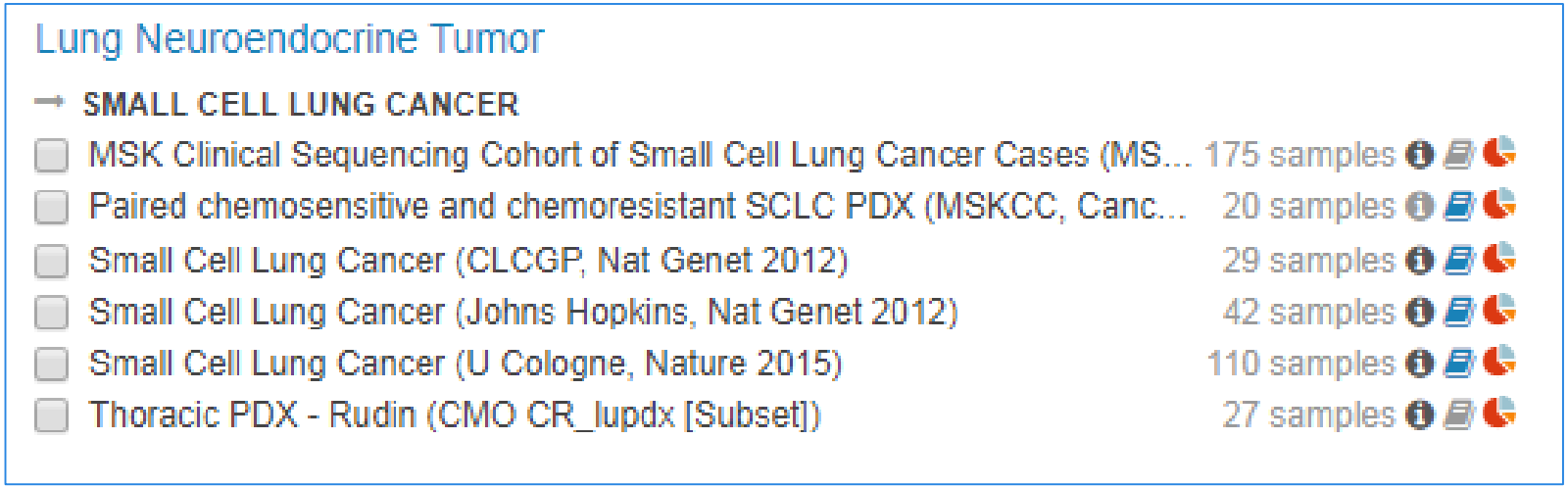


Aim 2: Analytics



Current SCLC resources in cBioPortal

- www.cbioportal.org/sclc



- Coming soon –
  - WES data from MSKCC
  - CDX models from MGH
  - Cell line data from UTSW
  - TMA tumors from CWRU

Aim 3: Models

- Cell line repository at UTSW
  - Over 105 SCLC lines
  - Mutational, expression, and proteome profiling
  - Comprehensive drug sensitivity screen (Teicher)

- PDX and CDX models at MSKCC and MGH (and elsewhere)
  - Rapidly emerging resource with CDX at MGH (Farago/Drabkin/Dyson)
  - Chemosensitive and chemoresistant pairs
  - Additional models (MDACC, U Manchester)

- GEMM models
  - Recent informative models from UTSW (Johnson), Utah (Oliver), and Stanford (Sage)
  - Multiple models being generated by others

Where we might invest some resources/effort (among other areas)

- Improving human data collection/annotation/display
  - Incorporation of additional datasets – tumors and models
  - Consistent clinical annotation
  - Gene expression / Methylome / Proteome…

- Mouse model database
  - A GEMM working group
  - Annotation of existing/emerging models
  - A cBioPortal for GEMMs
    - Genomic/RNA/proteomic datasets

- Please, let's think about this over the next couple days