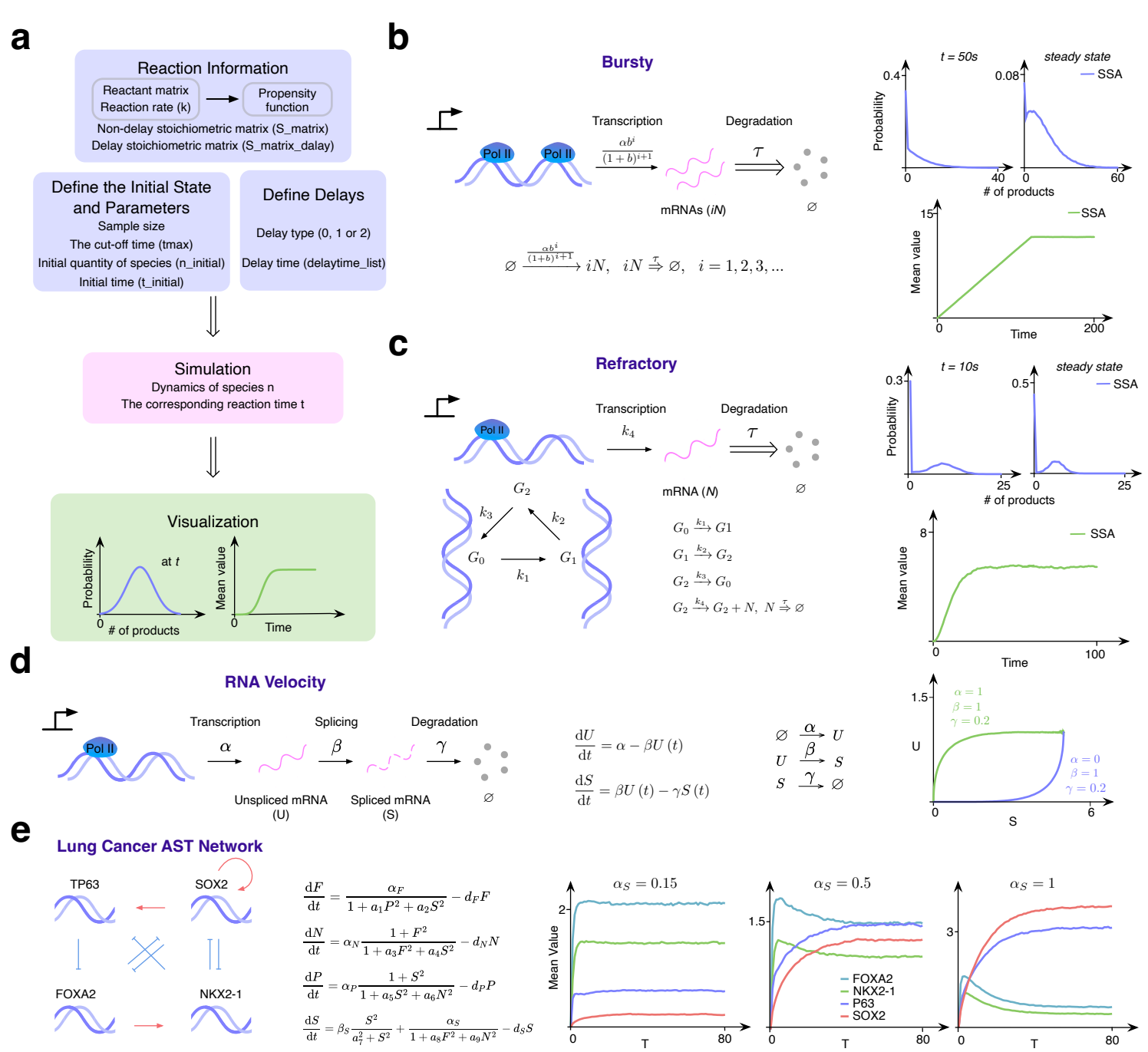
a
Reaction Information
Reactant matrix
Reaction rate (k)
Propensity function
Non-delay stoichiometric matrix (S_matrix)
Delay stoichiometric matrix (S_matrix_dalay)
Define the Initial State and Parameters
Sample size
The cut-off time (tmax)
Initial quantity of species (n_initial)
Initial time (t_initial)
Define Delays
Delay type (0, 1 or 2)
Delay time (delaytime_list)
Simulation
Dynamics of species n
The corresponding reaction time t
Visualization
Probability
at t
# of products
Mean value
Time
b
Bursty
Pol II
Transcription
Degradation
mRNAs (iN)
t = 50s
steady state
SSA
Probability
# of products
Mean value
Time
c
Refractory
Pol II
Transcription
Degradation
mRNA (N)
t = 10s
steady state
SSA
Probability
# of products
Mean value
Time
d
RNA Velocity
Pol II
Transcription
Splicing
Degradation
Unspliced mRNA (U)
Spliced mRNA (S)
U
S
e
Lung Cancer AST Network
TP63
SOX2
FOXA2
NKX2-1
Mean Value
T
FOXA2
NKX2-1
P63
SOX2