Supplemental

Figure 5 c, d, and e
These tables show the top 30 two-step transition probabilities associated with each reduced
Markov diagram for **(c)** $EGFR^m$ and **(d)** $EGFR^{wt}$. Spreader/sponge factors can be found in **(e)**
and were computed directly from the probabilities found in (c) and (d). Nodes are classified as a
"spreader" (red) or "sponge" (blue) based on the ratio of their outgoing and incoming
probabilities.

c

	Primary	Step 1	Step 2	Probability
1.	Lung/pleura →	Bone →	Lung/pleura	11.48%
2.	Lung/pleura →	Lung/pleura →	Lung/pleura	10.72%
3.	Lung/pleura →	Lung/pleura →	Bone	6.43%
4.	Lung/pleura →	Deceased →	Deceased	5.36%
5.	Lung/pleura →	Lung/pleura →	Brain	4.68%
6.	Lung/pleura →	Lung/pleura →	Liver	4.09%
7.	Lung/pleura →	Brain →	Lung/pleura	4.03%
8.	Lung/pleura →	Liver →	Brain	3.45%
9.	Lung/pleura →	Liver →	LN (dist)	3.45%
10.	Lung/pleura →	Bone →	Bone	3.02%
11.	Lung/pleura →	Lung/pleura →	LN (dist)	2.73%
12.	Lung/pleura →	Brain →	Deceased	2.56%
13.	Lung/pleura →	Brain →	Bone	2.56%
14.	Lung/pleura →	LN (dist) →	Lung/pleura	2.27%
15.	Lung/pleura →	Liver →	Lung/pleura	2.16%
16.	Lung/pleura →	LN (dist) →	Bone	1.89%
17.	Lung/pleura →	Bone →	Brain	1.81%
18.	Lung/pleura →	Pericardium →	Lung/pleura	1.79%
19.	Lung/pleura →	Lung/pleura →	Deceased	1.75%
20.	Lung/pleura →	LN (dist) →	Brain	1.52%
21.	Lung/pleura →	Bone →	Liver	1.51%
22.	Lung/pleura →	Adrenal →	Bone	1.32%
23.	Lung/pleura →	Liver →	Deceased	1.29%
24.	Lung/pleura →	Chest Wall →	Lung/pleura	1.19%
25.	Lung/pleura →	LN (dist) →	Deceased	1.14%
26.	Lung/pleura →	Lung/pleura →	Adrenal	0.97%
27.	Lung/pleura →	Bone →	LN (dist)	0.91%
28.	Lung/pleura →	Liver →	Adrenal	0.86%
29.	Lung/pleura →	LN (dist) →	Ab Wall	0.76%
30.	Lung/pleura →	Brain →	Liver	0.73%

d

	Primary	Step 1	Step 2	Probability
1.	Lung/pleura →	Bone →	Lung/pleura	18.74%
2.	Lung/pleura →	Lung/pleura →	Lung/pleura	6.42%
3.	Lung/pleura →	Lung/pleura →	Bone	6.42%
4.	Lung/pleura →	Deceased →	Deceased	6.22%
5.	Lung/pleura →	Liver →	LN (dist)	5.87%
6.	Lung/pleura →	Lung/pleura →	Liver	3.72%
7.	Lung/pleura →	LN (dist) →	Brain	3.56%
8.	Lung/pleura →	Lung/pleura →	LN (dist)	2.93%
9.	Lung/pleura →	Brain →	Adrenal	2.64%
10.	Lung/pleura →	Liver →	Deceased	2.57%
11.	Lung/pleura →	Lung/pleura →	Brain	2.48%
12.	Lung/pleura →	Liver →	Bone	2.20%
13.	Lung/pleura →	Brain →	Bone	2.11%
14.	Lung/pleura →	Bone →	Liver	2.11%
15.	Lung/pleura →	LN (dist) →	Adrenal	2.07%
16.	Lung/pleura →	LN (dist) →	Bone	1.78%
17.	Lung/pleura →	Bone →	Brain	1.58%
18.	Lung/pleura →	Bone →	Bone	1.58%
19.	Lung/pleura →	Lung/pleura →	Deceased	1.58%
20.	Lung/pleura →	LN (dist) →	Ab Wall	1.48%
21.	Lung/pleura →	Liver →	Lung/pleura	1.47%
22.	Lung/pleura →	Brain →	Lung/pleura	1.32%
23.	Lung/pleura →	Lung/pleura →	Adrenal	1.13%
24.	Lung/pleura →	Liver →	Adrenal	1.10%
25.	Lung/pleura →	Brain →	Deceased	1.06%
26.	Lung/pleura →	Adrenal →	Deceased	0.89%
27.	Lung/pleura →	LN (dist) →	Lung/pleura	0.89%
28.	Lung/pleura →	LN (dist) →	Muscles	0.89%
29.	Lung/pleura →	Brain →	Other CNS	0.79%
30.	Lung/pleura →	Adrenal →	Lung/pleura	0.74%

e

	Adrenal	Bone	Brain	Liver	LN(distant)	Lung/pleura
$EGFR^m$	0.720	1.230	0.864	1.769	1.070	0.933
$EGFR^{wt}$	0.235	1.704	1.041	2.265	1.213	0.834