

※ Fold 1, Fold 2 2.5D 실험 결과

1. 100 epoch을 목표로 학습 시켰지만 최적화가 예상보다 빠르게 되었음
 - Fold 1($1e-4$) - 34 epoch 학습, Fold 1($5e-4$) - 26 epoch 학습
 - Fold 2($1e-4$) - 19 epoch 학습
2. 평가 모델 선택 기준: highest val acc
 - Fold 1($1e-4$): 18 epoch
 - Fold 1($5e-4$): 13 epoch
 - Fold 2($1e-4$): 7 epoch
 - 특이사항: fold 1($5e-4$) 같은 경우 3 epoch에서 가장 acc가 높았으나 너무 학습을 적게 했다 판단하여 그 다음으로 정확도가 높았던 7 epoch 모델 선택
3. fold 1에서는 성능이 하락했지만 fold 2에서는 learning rate을 변경하여 학습을 시도한 것이 유의미한 성능 향상을 보임
 - fold 2에 있는 데이터를 자세히 살펴볼 필요가 있음

Fold 1(epoch: 30, lr: 1e-5)

전체	크기	F1	Recall	Precision	SPEC	ACC	IoU	JACCARD	Balanced A
86	1.602	52.224	41.538	70.313	99.913	99.623	35.340	35.340	70.726
399	1.625	57.642	51.684	65.154	99.817	99.501	40.491	40.491	75.751
415	1.730	68.872	53.132	97.863	99.995	99.789	52.523	52.523	76.584
395	2.449	48.073	66.903	37.515	99.034	98.758	31.643	31.643	82.969
321	2.752	85.180	78.043	93.755	99.925	99.613	74.186	74.186	88.984
37	2.885	69.793	67.024	72.802	99.565	99.009	53.602	53.602	83.294
Average		63.631	59.721	72.900	99.708	99.382	47.964	47.964	79.714
Standard		12.502	12.105	19.903	0.331	0.370	14.270	14.270	5.997
341	3.464	77.562	85.348	71.078	99.111	98.767	63.348	63.348	92.229
380	3.671	38.437	58.047	28.731	94.342	92.969	23.791	23.791	76.194
64	4.362	91.458	90.494	92.443	99.692	99.325	84.261	84.261	95.093
318	4.552	78.465	71.409	87.069	99.742	99.070	64.562	64.562	85.576
408	4.555	91.734	94.028	89.549	99.583	99.380	84.730	84.730	96.805
412	4.849	86.361	86.498	86.225	99.259	98.609	75.996	75.996	92.878
10	4.862	45.449	39.617	53.295	99.057	97.484	29.407	29.407	69.337
151	4.980	90.458	94.722	86.561	99.076	98.818	82.578	82.578	96.899
Average		74.991	77.520	74.369	98.733	98.053	63.584	63.584	88.126
Standard		19.836	18.479	21.052	1.680	1.999	22.754	22.754	9.632
279	5.212	65.688	79.527	55.952	96.948	96.138	48.907	48.907	88.237
405	5.732	75.427	86.237	67.026	97.828	97.264	60.549	60.549	92.033
237	5.932	86.533	78.407	96.538	99.769	98.148	76.263	76.263	89.088
264	6.578	86.311	95.751	78.565	97.540	97.386	75.918	75.918	96.645
99	6.823	79.596	68.058	95.845	99.714	98.915	66.108	66.108	83.886
18	7.370	72.928	59.025	95.398	99.575	94.305	57.391	57.391	79.300
109	7.801	89.955	86.515	93.680	99.185	97.632	81.744	81.744	92.850
73	7.822	88.794	88.785	88.802	98.751	97.751	79.846	79.846	93.768
190	8.208	79.342	75.424	83.689	97.913	95.118	65.758	65.758	86.669
5	8.224	58.334	64.053	53.553	95.548	93.211	41.178	41.178	79.800
11	8.375	66.999	50.782	98.436	99.888	93.919	50.375	50.375	75.335
25	8.389	74.545	64.286	88.701	99.155	95.893	59.420	59.420	81.720
393	8.431	83.316	93.706	75.001	95.772	95.525	71.404	71.404	94.739
257	8.489	91.903	89.068	94.925	99.197	97.734	85.019	85.019	94.132
163	9.319	79.273	69.880	91.583	99.188	95.897	65.663	65.663	84.534
419	9.428	85.299	84.821	85.782	98.030	98.407	74.386	74.386	91.426
320	10.047	77.397	70.129	86.344	98.485	95.078	63.128	63.128	84.307
Average		78.920	76.733	84.107	98.381	96.137	66.061	66.061	87.557
Standard		8.983	12.555	13.444	1.291	1.423	11.912	11.912	6.076
Average		74.430	72.941	79.187	98.717	97.207	61.231	61.231	85.829
Standard		14.428	15.574	18.051	1.406	1.985	17.144	17.144	7.703

Lung window

전체	크기	F1	Recall	Precision	SPEC	ACC	IoU	JACCARD	Balanced A
86	1.602	54.545	46.154	66.667	99.885	99.619	37.500	37.500	73.019
399	1.625	25.645	17.886	45.294	99.857	99.319	14.709	14.709	58.872
415	1.730	55.627	70.534	45.921	99.634	99.507	38.530	38.530	85.084
395	2.449	64.858	71.307	59.479	99.579	99.336	47.992	47.992	85.443
321	2.752	85.105	76.881	95.299	99.945	99.616	74.072	74.072	88.413
37	2.885	68.547	67.500	69.628	99.488	98.941	52.146	52.146	83.494
Average		59.055	58.377	63.715	99.731	99.390	44.158	44.158	79.054
Standard		18.031	20.532	16.907	0.172	0.233	17.873	17.873	10.232
341	3.464	78.918	86.280	72.714	99.171	98.849	65.178	65.178	92.725
380	3.671	43.198	66.844	31.910	94.395	93.353	27.550	27.550	80.620
64	4.362	90.088	88.002	92.276	99.694	99.227	81.964	81.964	93.848
318	4.552	81.313	80.629	82.008	99.570	99.121	68.510	68.510	90.100
408	4.555	91.086	90.585	91.591	99.684	99.351	83.631	83.631	95.135
412	4.849	88.570	88.973	88.170	99.359	98.831	79.485	79.485	94.166
10	4.862	35.957	27.281	52.727	99.335	97.429	21.920	21.920	63.308
151	4.980	91.201	93.401	89.103	99.282	98.934	83.825	83.825	96.341
Average		75.042	77.749	75.063	98.811	98.137	64.008	64.008	88.280
Standard		20.988	20.579	20.473	1.679	1.892	23.617	23.617	10.506
279	5.212	68.416	72.324	64.910	98.094	96.896	51.995	51.995	85.209
405	5.732	76.032	79.257	73.059	98.504	97.567	61.332	61.332	88.881
237	5.932	85.625	76.862	96.642	99.781	98.041	74.863	74.863	88.321
264	6.578	88.396	96.214	81.752	97.977	97.826	79.204	79.204	97.096
99	6.823	77.214	64.008	97.286	99.827	96.660	62.885	62.885	81.917
18	7.370	74.354	61.962	92.941	99.297	94.445	59.177	59.177	80.630
109	7.801	91.403	88.096	94.967	99.348	97.969	84.167	84.167	93.722
73	7.822	88.258	87.655	88.870	98.776	97.660	78.984	78.984	93.215
190	8.208	79.529	79.461	79.598	97.109	94.915	66.016	66.016	88.285
5	8.224	58.201	67.679	51.051	94.799	92.787	41.044	41.044	81.239
11	8.375	68.443	52.647	97.782	99.835	94.099	52.026	52.026	76.241
25	8.389	72.673	61.491	88.826	99.202	95.674	57.076	57.076	80.346
393	8.431	82.433	91.798	74.802	95.814	95.335	70.116	70.116	93.806
257	8.489	91.649	88.025	95.584	99.314	97.684	84.585	84.585	93.669
163	9.319	83.530	80.263	87.073	98.493	96.446	71.718	71.718	89.378
419	9.428	85.840	82.001	90.055	98.731	96.675	75.192	75.192	90.366
320	10.047	76.652	66.919	89.698	98.950	95.102	62.143	62.143	82.935
Average		79.332	76.274	84.994	98.462	96.222	66.619	66.619	87.368
Standard		8.893	11.939	12.481	1.357	1.522	11.910	11.910	5.829
Average		73.737	72.517	77.953	98.782	97.276	60.857	60.857	85.649
Standard		16.687	17.854	17.998	1.425	1.976	18.779	18.779	8.834

2.5D Lung window

Fold 1(epoch: 100, lr: 1e-4)

전체	크기	F1	Recall	Precision	SPEC	ACC	IoU	JACCARD	Balanced
86	1.602	52.224	41.538	70.313	99.913	99.623	35.340	35.340	70.726
399	1.625	57.642	51.684	65.154	99.817	99.501	40.491	40.491	75.751
415	1.730	68.872	53.132	97.863	99.995	99.789	52.523	52.523	78.564
395	2.449	48.073	66.903	37.515	99.034	98.758	31.643	31.643	82.969
321	2.752	85.180	78.043	93.755	99.925	99.613	74.186	74.186	88.984
37	2.885	69.793	67.024	72.802	99.565	99.009	53.602	53.602	83.294
Average		63.631	59.721	72.900	99.708	99.382	47.984	47.984	79.714
Standard		12.502	12.105	19.903	0.331	0.370	14.270	14.270	5.997
341	3.464	77.562	85.348	71.078	99.111	98.767	63.348	63.348	92.229
380	3.671	38.437	58.047	28.731	94.342	92.969	23.791	23.791	76.194
64	4.362	91.458	90.494	92.443	99.692	99.325	84.261	84.261	95.093
318	4.552	78.465	71.409	87.069	99.742	99.070	64.562	64.562	85.576
408	4.555	91.734	94.028	89.549	99.583	99.380	84.730	84.730	96.805
412	4.849	86.361	86.498	86.225	99.259	98.609	75.996	75.996	92.878
10	4.862	45.449	39.617	53.295	99.057	97.484	29.407	29.407	69.337
151	4.980	90.458	94.722	86.561	99.076	98.818	82.578	82.578	96.899
Average		74.991	77.520	74.369	98.733	98.053	63.584	63.584	88.126
Standard		19.836	18.479	21.052	1.680	1.999	22.754	22.754	9.632
279	5.212	65.688	79.527	55.952	98.948	96.138	48.907	48.907	88.237
405	5.732	75.427	86.237	67.026	97.828	97.264	60.549	60.549	92.033
237	5.932	86.533	78.407	96.538	99.769	98.148	76.263	76.263	89.088
264	6.578	86.311	95.751	78.565	97.540	97.386	75.918	75.918	96.645
99	6.823	79.596	68.058	95.845	99.714	98.915	66.108	66.108	83.886
18	7.370	72.928	59.025	95.398	99.575	94.305	57.391	57.391	79.300
109	7.801	89.955	86.515	93.680	99.185	97.632	81.744	81.744	92.850
73	7.822	88.794	88.785	88.802	98.751	97.751	79.846	79.846	93.768
190	8.208	79.342	75.424	83.689	97.913	95.118	65.758	65.758	86.669
5	8.224	58.334	64.053	53.553	95.548	93.211	41.178	41.178	79.800
11	8.375	66.999	50.782	98.436	99.888	93.919	50.375	50.375	75.335
25	8.389	74.645	64.286	88.701	99.155	95.893	59.420	59.420	81.720
393	8.431	83.316	93.706	75.001	95.772	95.525	71.404	71.404	94.739
257	8.489	91.903	89.068	94.925	99.197	97.734	85.019	85.019	94.132
163	9.319	79.273	69.880	91.583	99.188	95.897	65.663	65.663	84.534
419	9.428	85.299	84.821	85.782	98.030	96.407	74.366	74.366	91.426
320	10.047	77.397	70.129	86.344	98.485	95.078	63.128	63.128	84.307
Average		78.920	76.733	84.107	98.381	98.137	66.061	66.061	87.557
Standard		8.983	12.555	13.444	1.291	1.423	11.912	11.912	6.076
Average		74.430	72.941	79.187	98.717	97.207	61.231	61.231	85.829
Standard		14.428	15.574	18.051	1.406	1.985	17.144	17.144	7.703

Lung window(12 epoch, lr: 1e-4)
5)

전체	크기	F1	Recall	Precision	SPEC	ACC	IoU	JACCARD	Balanced A
86	1.602	48.276	32.308	95.455	99.992	99.657	31.818	31.818	66.150
399	1.625	1.114	0.581	13.514	99.975	99.323	0.560	0.560	50.278
415	1.730	67.180	50.580	100.000	100.000	99.783	50.580	50.580	75.290
395	2.449	54.698	69.247	45.202	99.272	99.014	37.645	37.645	84.260
321	2.752	82.646	76.024	90.532	99.885	99.545	70.425	70.425	87.955
37	2.885	66.321	63.452	69.461	99.515	98.899	49.612	49.612	81.484
Average		53.373	48.699	69.027	99.773	99.370	40.107	40.107	74.236
Standard		25.736	25.736	31.010	0.280	0.325	21.440	21.440	12.791
341	3.464	78.528	83.316	74.261	99.261	98.862	64.647	64.647	91.288
380	3.671	52.506	87.328	37.538	94.290	94.026	35.599	35.599	90.809
64	4.362	90.999	89.699	92.338	99.690	99.291	83.485	83.485	94.695
318	4.552	79.521	71.646	89.341	99.792	99.124	66.004	66.004	85.719
408	4.555	92.723	91.841	93.622	99.762	99.472	86.433	86.433	95.801
412	4.849	87.733	89.531	86.005	99.218	98.725	78.146	78.146	94.375
10	4.862	41.257	38.463	44.488	98.696	97.103	25.989	25.989	68.579
151	4.980	90.895	94.220	87.797	99.177	98.884	83.310	83.310	96.698
Average		76.770	80.755	75.674	98.736	98.186	65.452	65.452	89.746
Standard		18.156	17.257	20.824	1.716	1.713	21.491	21.491	8.651
279	5.212	65.790	68.963	62.896	98.017	96.666	49.020	49.020	83.490
405	5.732	75.828	80.589	71.599	98.364	97.498	61.067	61.067	89.476
237	5.932	82.982	72.211	97.529	99.850	97.752	70.914	70.914	86.030
264	6.578	88.561	92.598	84.862	98.444	97.941	79.471	79.471	95.521
99	6.823	77.678	64.169	98.391	99.898	96.740	63.503	63.503	82.034
18	7.370	73.777	59.096	98.163	99.835	94.540	58.449	58.449	79.465
109	7.801	91.092	87.010	95.575	99.437	97.915	83.641	83.641	93.224
73	7.822	88.004	85.471	90.692	99.022	97.662	78.578	78.578	92.247
190	8.208	76.793	75.880	77.729	96.914	94.299	62.329	62.329	86.397
5	8.224	55.304	65.139	48.049	94.356	92.188	38.221	38.221	79.747
11	8.375	68.233	52.342	97.979	99.851	94.076	51.783	51.783	76.096
25	8.389	73.258	60.664	92.451	99.489	95.857	57.801	57.801	80.077
393	8.431	82.801	94.678	73.572	95.396	95.310	70.650	70.650	95.037
257	8.489	91.448	86.719	96.723	99.504	97.659	84.244	84.244	93.112
163	9.319	80.795	73.781	89.284	98.880	96.061	67.779	67.779	86.330
419	9.428	85.902	83.880	88.025	98.401	96.616	75.288	75.288	91.140
320	10.047	75.865	66.230	88.780	98.857	94.937	61.115	61.115	82.543
Average		78.477	74.672	85.429	98.501	96.101	65.521	65.521	86.586
Standard		9.358	12.142	13.871	1.541	1.615	12.294	12.294	5.921
Average		72.587	70.448	79.469	98.795	97.218	59.827	59.827	84.622
Standard		18.894	20.240	21.458	1.544	2.018	19.671	19.671	9.922

2.5D Lung window(18 epoch, lr: 1e-4)

Fold 1(epoch: 100, lr: 5e-4)

전체	크기	F1	Recall	Precision	SPEC	ACC	IoU	JACCARD	Balanced A
86	1.602	52.224	41.538	70.313	99.913	99.623	35.340	35.340	70.726
399	1.625	57.642	51.684	65.154	99.817	99.501	40.491	40.491	75.751
415	1.730	68.872	53.132	97.863	99.995	99.789	52.523	52.523	76.584
395	2.449	48.073	66.903	37.515	99.034	98.758	31.643	31.643	82.969
321	2.752	85.180	78.043	93.755	99.925	99.613	74.186	74.186	88.984
37	2.885	69.793	67.024	72.802	99.565	99.009	53.602	53.602	83.294
Average		63.631	59.721	72.900	99.708	99.382	47.964	47.964	79.714
Standard		12.502	12.105	19.903	0.331	0.370	14.270	14.270	5.997
341	3.464	77.562	85.348	71.078	99.111	98.767	63.348	63.348	92.229
380	3.671	38.437	58.047	28.731	94.342	92.969	23.791	23.791	76.194
64	4.362	91.458	90.494	92.443	99.692	99.325	84.261	84.261	95.093
318	4.552	78.465	71.409	87.069	99.742	99.070	64.562	64.562	85.576
408	4.555	91.734	94.028	89.549	99.583	99.380	84.730	84.730	96.805
412	4.849	86.361	86.498	86.225	99.259	98.609	75.996	75.996	92.878
10	4.862	45.449	39.617	53.295	99.057	97.484	29.407	29.407	69.337
151	4.980	90.458	94.722	86.561	99.076	98.818	82.578	82.578	96.899
Average		74.991	77.520	74.369	98.733	98.053	63.584	63.584	88.126
Standard		19.836	18.479	21.052	1.680	1.999	22.754	22.754	9.632
279	5.212	65.688	79.527	55.952	96.948	96.138	48.907	48.907	88.237
405	5.732	75.427	86.237	67.026	97.828	97.264	60.549	60.549	92.033
237	5.932	86.533	78.407	96.538	99.769	98.148	76.263	76.263	89.088
264	6.578	86.311	95.751	78.565	97.540	97.386	75.918	75.918	96.645
99	6.823	79.596	68.058	95.845	99.714	96.915	66.108	66.108	83.886
18	7.370	72.928	59.025	95.398	99.575	94.305	57.391	57.391	79.300
109	7.801	89.955	86.515	93.680	99.185	97.632	81.744	81.744	92.850
73	7.822	88.794	88.785	88.802	98.751	97.751	79.846	79.846	93.768
190	8.208	79.342	75.424	83.689	97.913	95.118	65.758	65.758	86.669
5	8.224	58.334	64.053	53.553	95.548	93.211	41.178	41.178	79.800
11	8.375	66.999	50.782	98.436	99.888	93.919	50.375	50.375	75.335
25	8.389	74.545	64.286	88.701	99.155	95.893	59.420	59.420	81.720
393	8.431	83.316	93.706	75.001	95.772	95.525	71.404	71.404	94.739
257	8.489	91.903	89.068	94.925	99.197	97.734	85.019	85.019	94.132
163	9.319	79.273	69.880	91.583	99.188	95.897	65.663	65.663	84.534
419	9.428	85.299	84.821	85.782	98.030	96.407	74.366	74.366	91.426
320	10.047	77.397	70.129	86.344	98.485	95.078	63.128	63.128	84.307
Average		78.920	76.733	84.107	98.381	96.137	66.061	66.061	87.557
Standard		8.983	12.555	13.444	1.291	1.423	11.912	11.912	6.076
Average		74.430	72.941	79.187	98.717	97.207	61.231	61.231	85.829
Standard		14.428	15.574	18.051	1.406	1.985	17.144	17.144	7.703

Lung window(12 epoch, lr: 1e-5)

전체	크기	F1	Recall	Precision	SPEC	ACC	IoU	JACCARD	Balanced A
86	1.602	49.412	38.769	68.108	99.910	99.606	32.813	32.813	69.339
399	1.625	24.809	15.099	69.519	99.956	99.399	14.161	14.161	57.527
415	1.730	75.000	61.253	96.703	99.991	99.821	60.000	60.000	80.622
395	2.449	62.795	59.517	66.455	99.740	99.394	45.767	45.767	79.628
321	2.752	85.217	79.327	92.051	99.901	99.608	74.242	74.242	89.614
37	2.885	63.510	56.944	71.786	99.611	98.882	46.530	46.530	78.278
Average		60.124	51.818	77.437	99.851	99.452	45.586	45.586	75.835
Standard		19.285	20.207	12.159	0.133	0.293	19.064	19.064	10.087
341	3.464	79.277	84.079	74.993	99.282	98.903	65.668	65.668	91.681
380	3.671	52.181	79.548	38.825	95.074	94.487	35.301	35.301	87.311
64	4.362	91.483	91.518	91.448	99.644	99.319	84.302	84.302	95.581
318	4.552	78.039	68.342	90.943	99.835	99.087	63.987	63.987	84.088
408	4.555	91.585	91.046	92.131	99.704	99.387	84.477	84.477	95.375
412	4.849	89.252	89.747	88.762	99.390	98.899	80.590	80.590	94.568
10	4.862	37.586	28.523	55.091	99.368	97.494	23.142	23.142	63.946
151	4.980	90.583	94.495	86.983	99.111	98.838	82.788	82.788	96.803
Average		76.248	78.412	77.397	98.926	98.302	65.032	65.032	88.669
Standard		19.132	20.440	18.742	1.473	1.943	22.212	22.212	10.228
279	5.212	65.296	68.779	62.148	97.958	96.601	48.473	48.473	83.368
405	5.732	79.175	82.226	76.342	98.696	97.894	65.528	65.528	90.461
237	5.932	82.460	71.380	97.613	99.857	97.695	70.155	70.155	85.618
264	6.578	89.971	95.745	84.854	98.391	98.163	81.770	81.770	97.068
99	6.823	74.675	60.027	98.781	99.928	96.401	59.585	59.585	79.977
18	7.370	73.741	59.103	98.017	99.821	94.530	58.405	58.405	79.462
109	7.801	90.008	84.330	96.505	99.574	97.705	81.831	81.831	91.952
73	7.822	88.862	85.862	92.079	99.176	97.840	79.956	79.956	92.519
190	8.208	79.429	77.871	81.050	97.416	94.986	65.877	65.877	87.643
5	8.224	53.712	60.334	48.400	94.845	92.284	36.717	36.717	77.589
11	8.375	63.635	46.772	99.512	99.968	93.502	46.665	46.665	73.370
25	8.389	74.782	62.519	93.029	99.517	96.056	59.721	59.721	81.018
393	8.431	83.923	93.110	76.387	96.103	95.746	72.300	72.300	94.607
257	8.489	91.210	86.235	96.794	99.518	97.601	83.840	83.840	92.877
163	9.319	81.056	73.260	90.708	99.051	96.155	68.146	68.146	86.155
419	9.428	84.320	81.073	87.838	98.427	96.294	72.890	72.890	89.750
320	10.047	73.443	61.842	90.404	99.104	94.626	58.032	58.032	80.473
Average		78.218	73.557	86.498	98.668	96.122	65.288	65.288	86.112
Standard		10.014	13.337	13.663	1.378	1.637	12.955	12.955	6.553
Average		73.661	69.806	82.242	98.958	97.279	60.696	60.696	84.382
Standard		16.416	19.131	15.793	1.366	2.018	18.594	18.594	9.415

2.5D Lung window(13 epoch, lr: 5e-4)

Fold 1(epoch: 30, lr: 1e-5)

전체	크기	F1	Recall	Precision	SPEC	ACC	IoU	JACCARD	Balanced_A
86	1.602	10.496	5.538	100.000	100.000	99.532	5.538	5.538	52.769
399	1.625	45.236	31.707	78.902	99.944	99.496	29.229	29.229	65.826
415	1.730	65.554	50.116	94.737	99.988	99.769	48.758	48.758	75.052
395	2.449	53.093	55.469	50.913	99.536	99.158	36.141	36.141	77.503
321	2.752	75.572	61.590	97.767	99.980	99.432	60.736	60.736	80.785
37	2.885	63.205	56.508	71.702	99.612	98.876	46.204	46.204	78.060
Average		52.193	43.488	82.337	99.843	99.377	37.768	37.768	71.666
Standard		20.953	19.423	17.398	0.192	0.287	17.482	17.482	9.868
341	3.464	78.903	76.684	81.253	99.547	98.976	65.156	65.156	88.116
380	3.671	43.800	56.933	35.590	95.951	94.476	28.041	28.041	76.442
64	4.362	90.029	86.321	94.071	99.774	99.236	81.867	81.867	93.047
318	4.552	76.405	68.461	86.435	99.739	98.997	61.819	61.819	84.100
408	4.555	92.370	90.291	94.547	99.802	99.454	85.822	85.822	95.047
412	4.849	86.564	81.854	91.850	99.610	98.706	76.312	76.312	90.732
10	4.862	53.805	51.331	56.090	98.908	97.650	36.617	36.617	75.120
151	4.980	91.684	90.800	92.545	99.540	99.023	84.610	84.610	95.170
Average		76.668	75.334	79.048	99.109	98.315	65.031	65.031	87.222
Standard		17.194	14.098	20.270	1.223	1.536	20.653	20.653	7.449
279	5.212	62.297	66.801	58.382	97.676	96.241	45.240	45.240	82.239
405	5.732	73.980	82.171	67.274	97.954	97.185	58.705	58.705	90.063
237	5.932	78.912	66.960	96.058	99.774	97.284	65.170	65.170	83.367
264	6.578	89.632	92.756	86.711	98.661	98.153	81.211	81.211	95.709
99	6.823	71.488	55.705	99.753	99.987	98.072	55.628	55.628	77.846
18	7.370	72.666	57.784	97.872	99.812	94.350	57.067	57.067	78.798
109	7.801	91.868	87.598	96.130	99.507	98.048	84.614	84.614	93.553
73	7.822	88.260	86.141	90.486	98.990	97.701	78.987	78.987	92.565
190	8.208	82.273	75.260	90.727	98.908	95.969	69.884	69.884	87.084
5	8.224	59.382	67.535	52.986	95.198	93.145	42.230	42.230	81.366
11	8.375	63.666	47.299	97.350	99.822	93.437	46.698	46.698	73.561
25	8.389	72.611	58.209	96.481	99.781	95.892	56.999	56.999	78.995
393	8.431	82.963	90.805	76.351	98.192	95.550	70.871	70.871	93.499
257	8.489	90.391	84.978	96.541	99.486	97.392	82.467	82.467	92.232
163	9.319	78.290	68.962	90.537	99.088	95.705	64.325	64.325	84.025
419	9.428	85.592	83.852	87.407	98.307	98.531	74.814	74.814	91.079
320	10.047	78.472	69.473	90.151	98.963	95.420	64.572	64.572	84.218
Average		77.796	73.076	86.540	98.712	96.122	64.675	64.675	85.894
Standard		9.691	13.255	13.846	1.293	1.432	12.834	12.834	6.438
Average		71.912	67.170	83.501	99.017	97.261	58.724	58.724	83.093
Standard		17.615	18.950	16.935	1.239	1.906	19.089	19.089	9.339

Mediastinal window

전체	크기	F1	Recall	Precision	SPEC	ACC	IoU	JACCARD	Balanced_A
86	1.602	22.404	12.615	100.000	100.000	99.567	12.615	12.615	56.308
399	1.625	49.083	37.282	71.812	99.903	99.492	32.523	32.523	68.593
415	1.730	57.237	40.371	98.305	99.997	99.736	40.092	40.092	70.184
395	2.449	51.861	44.531	62.079	99.764	99.290	35.008	35.008	72.148
321	2.752	74.035	59.817	97.120	99.974	99.402	58.774	58.774	79.895
37	2.885	60.155	49.365	76.980	99.743	98.882	43.015	43.015	74.554
Average		52.462	40.664	84.383	99.897	99.395	37.005	37.005	70.280
Standard		15.613	14.467	14.777	0.106	0.267	13.775	13.775	7.215
341	3.464	80.883	77.510	84.564	99.638	99.085	67.903	67.903	88.574
380	3.671	47.867	64.391	38.092	95.888	94.697	31.464	31.464	80.139
64	4.362	88.398	82.623	95.042	99.821	99.134	79.209	79.209	91.222
318	4.552	77.375	67.768	90.155	99.820	99.060	63.099	63.099	83.794
408	4.555	91.105	87.692	94.795	99.817	99.373	83.664	83.664	93.755
412	4.849	86.783	80.781	93.748	99.711	98.747	76.652	76.652	90.246
10	4.862	28.932	24.228	35.902	98.825	96.852	16.912	16.912	61.526
151	4.980	91.499	87.848	95.468	99.738	99.035	84.331	84.331	93.793
Average		74.105	71.605	78.471	99.157	98.248	62.904	62.904	85.381
Standard		21.628	19.604	24.186	1.274	1.535	23.648	23.648	10.049
279	5.212	66.150	66.897	65.420	98.276	96.817	49.421	49.421	82.587
405	5.732	71.914	72.967	70.890	98.466	97.224	56.145	56.145	85.717
237	5.932	73.907	59.116	98.570	99.930	96.832	58.613	58.613	79.523
264	6.578	90.044	90.830	89.272	98.972	98.271	81.892	81.892	94.901
99	6.823	74.257	59.346	99.177	99.952	96.362	59.055	59.055	79.649
18	7.370	74.465	60.195	97.601	99.779	94.635	59.318	59.318	79.987
109	7.801	90.901	85.625	96.869	99.614	97.899	83.319	83.319	92.619
73	7.822	87.581	83.189	92.463	99.244	97.633	77.906	77.906	91.216
190	8.208	79.059	69.488	91.687	99.106	95.424	65.370	65.370	84.297
5	8.224	55.565	59.360	52.225	95.648	92.956	38.470	38.470	77.504
11	8.375	57.745	40.765	98.972	99.941	92.748	40.593	40.593	70.353
25	8.389	69.565	54.278	96.837	99.817	95.557	53.333	53.333	77.048
393	8.431	84.430	86.676	82.299	97.476	96.188	73.056	73.056	92.076
257	8.489	90.643	84.834	97.306	99.604	97.472	82.887	82.887	92.219
163	9.319	77.776	67.812	91.172	99.169	95.648	63.634	63.634	83.491
419	9.428	82.627	79.300	86.246	98.228	95.902	70.397	70.397	88.764
320	10.047	75.737	64.587	91.540	99.185	95.028	60.949	60.949	81.886
Average		76.610	69.721	88.150	98.965	96.035	63.197	63.197	84.343
Standard		10.304	13.353	12.989	1.078	1.532	13.350	13.350	6.599
Average		70.616	63.808	84.571	99.177	97.197	57.176	57.176	81.492
Standard		17.568	19.217	17.564	1.101	1.971	19.343	19.343	9.526

2.5D Mediastinal window

Fold 2(epoch: 30, lr: 1e-5)

전체	크기	F1	Recall	Precision	SPEC	ACC	IoU	JACCARD	Balanced A
288	1.408	29.714	85.789	17.969	98.753	98.712	17.449	17.449	92.261
98	1.924	83.781	73.860	96.782	99.978	99.751	72.089	72.089	86.919
383	2.072	45.802	80.116	32.067	98.947	98.831	29.703	29.703	89.531
114	2.195	83.862	88.271	79.872	99.659	99.487	72.208	72.208	93.965
369	2.255	74.056	60.234	96.112	99.981	99.670	58.801	58.801	80.107
359	2.360	74.691	68.898	81.547	99.796	99.397	59.605	59.605	84.347
Average		65.318	76.191	67.392	99.519	99.308	51.643	51.643	87.855
Standard		20.402	9.715	30.917	0.489	0.398	20.841	20.841	4.704
14	3.066	44.937	32.180	74.450	99.783	98.482	28.979	28.979	65.982
414	3.275	90.907	93.194	88.729	99.695	99.532	83.330	83.330	96.445
7	3.540	88.181	86.192	90.264	99.745	99.384	78.860	78.860	92.969
317	3.743	70.786	55.895	96.492	99.942	98.728	54.782	54.782	77.919
24	3.855	84.851	74.883	97.880	99.939	99.032	73.688	73.688	87.411
406	4.064	84.605	96.178	75.518	99.012	98.925	73.318	73.318	97.595
378	4.442	87.368	86.221	88.546	99.703	99.353	77.570	77.570	92.962
384	4.560	75.988	78.072	74.012	98.936	98.157	61.275	61.275	88.504
Average		78.453	75.352	85.736	99.595	98.949	68.475	68.475	87.473
Standard		14.125	20.118	9.150	0.369	0.446	16.692	16.692	9.984
258	5.156	90.632	90.164	91.104	99.528	99.052	82.869	82.869	94.846
8	5.396	84.190	90.800	78.478	98.465	98.020	72.697	72.697	94.632
47	5.617	73.842	63.956	87.344	99.621	98.220	58.531	58.531	81.788
208	5.635	50.413	39.390	70.001	99.194	96.467	33.701	33.701	69.292
322	5.765	75.552	94.143	63.093	97.691	97.548	60.710	60.710	95.917
392	5.809	82.742	74.466	93.088	99.752	98.668	70.564	70.564	87.109
416	5.854	75.779	87.991	66.544	97.474	96.962	61.004	61.004	92.733
373	5.912	73.768	80.140	68.335	97.704	96.681	58.439	58.439	88.922
343	6.918	85.149	88.987	81.627	98.181	97.415	74.138	74.138	93.584
92	7.042	85.133	86.435	83.870	98.766	97.913	74.115	74.115	92.600
401	7.099	87.109	88.069	86.171	98.683	97.778	77.162	77.162	93.376
22	7.185	74.356	60.073	97.549	99.856	98.389	59.179	59.179	79.964
224	7.539	82.576	86.740	78.793	97.406	96.339	70.323	70.323	92.073
352	8.037	85.080	79.125	91.959	99.304	97.481	74.004	74.004	89.215
407	8.153	75.086	75.849	74.337	98.255	98.855	60.110	60.110	87.052
116	9.161	70.523	59.903	85.721	98.267	92.590	54.468	54.468	79.085
96	9.523	81.692	69.644	98.782	99.874	96.019	69.051	69.051	84.759
Average		78.447	77.404	82.164	98.707	97.081	65.357	65.357	88.056
Standard		8.981	14.278	10.571	0.836	1.397	11.155	11.155	6.949
Average		75.905	76.592	80.434	99.099	97.989	63.048	63.048	87.845
Standard		14.491	15.590	17.851	0.817	1.500	16.240	16.240	7.643

Lung window

전체	크기	F1	Recall	Precision	SPEC	ACC	IoU	JACCARD	Balanced A
288	1.408	16.852	64.231	9.698	98.096	97.988	9.201	9.201	81.163
98	1.924	66.511	49.825	100.000	100.000	99.564	49.825	49.825	74.912
383	2.072	67.871	72.855	63.525	99.741	99.575	51.367	51.367	86.298
114	2.195	86.086	86.957	85.233	99.769	99.576	75.571	75.571	93.363
369	2.255	70.165	56.043	93.801	99.971	99.627	54.041	54.041	78.007
359	2.360	70.000	54.567	97.606	99.982	99.396	53.846	53.846	77.275
Average		62.914	64.079	74.977	99.593	99.288	48.975	48.975	81.836
Standard		21.599	12.640	31.597	0.678	0.585	19.770	19.770	6.280
14	3.066	46.598	36.044	65.894	99.634	98.410	30.377	30.377	67.839
414	3.275	88.267	80.919	97.084	99.937	99.460	78.999	78.999	90.428
7	3.540	79.841	68.880	94.949	99.900	99.073	66.446	66.446	84.390
317	3.743	66.222	51.992	91.179	99.857	98.537	49.502	49.502	75.925
24	3.855	78.611	67.709	93.698	99.829	98.667	64.760	64.760	83.769
406	4.064	85.257	90.855	80.309	99.294	99.035	74.302	74.302	95.075
378	4.442	84.717	80.192	89.783	99.757	99.250	73.486	73.486	89.974
384	4.560	75.771	76.815	74.754	98.993	98.165	60.993	60.993	87.904
Average		75.661	69.176	85.956	99.650	98.825	62.358	62.358	84.413
Standard		12.713	16.518	10.407	0.314	0.419	14.815	14.815	8.217
258	5.156	89.711	87.116	92.464	99.620	98.984	81.341	81.341	93.368
8	5.396	79.080	81.923	76.428	98.442	97.483	65.399	65.399	90.182
47	5.617	55.420	40.511	87.690	99.768	97.440	38.331	38.331	70.139
208	5.635	55.091	41.404	82.293	99.574	96.922	38.018	38.018	70.489
322	5.765	79.906	83.047	76.993	98.960	98.319	66.536	66.536	91.003
392	5.809	84.384	74.094	97.991	99.932	98.824	72.986	72.986	87.013
416	5.854	75.002	77.048	73.063	98.378	97.226	60.003	60.003	87.713
373	5.912	65.441	59.217	73.127	98.655	96.358	48.634	48.634	78.936
343	6.918	83.578	91.677	76.794	97.484	97.000	71.789	71.789	94.580
92	7.042	87.198	85.849	88.590	99.179	98.257	77.302	77.302	92.514
401	7.099	86.760	81.914	92.217	99.356	97.869	76.617	76.617	90.635
22	7.185	72.509	57.759	97.376	99.851	96.183	56.874	56.874	78.805
224	7.539	81.839	85.451	78.520	97.402	96.207	69.261	69.261	91.427
352	8.037	77.128	63.713	97.699	99.849	96.548	62.772	62.772	81.781
407	8.153	63.805	68.390	59.797	96.936	95.152	46.849	46.849	82.663
116	9.161	65.898	53.106	86.808	98.598	91.867	49.141	49.141	75.852
96	9.523	76.487	62.083	99.593	99.963	95.132	61.926	61.926	81.023
Average		75.249	70.253	84.556	98.938	96.810	61.399	61.399	84.596
Standard		10.414	15.560	10.838	0.931	1.652	12.964	12.964	7.611
Average		72.875	68.512	83.340	99.257	97.798	59.183	59.183	83.885
Standard		14.923	15.665	17.587	0.853	1.713	16.066	16.066	7.706

2.5D Lung window

Fold 2(epoch: 100, lr: 1e-4)

전체	크기	F1	Recall	Precision	SPEC	ACC	IoU	JACCARD	Balanced
288	1.408	29.714	85.789	17.969	98.753	98.712	17.449	17.449	92.261
98	1.924	83.781	73.860	96.782	99.978	99.751	72.089	72.089	86.919
383	2.072	45.802	80.116	32.067	98.947	98.831	29.703	29.703	89.531
114	2.195	83.862	88.271	79.872	99.659	99.487	72.208	72.208	93.965
369	2.255	74.056	60.234	96.112	99.981	99.670	58.801	58.801	80.107
359	2.360	74.691	68.898	81.547	99.796	99.397	59.605	59.605	84.347
Average		65.318	76.191	67.392	99.519	99.308	51.643	51.643	87.855
Standard		20.402	9.715	30.917	0.489	0.398	20.841	20.841	4.704
14	3.066	44.937	32.180	74.450	99.783	98.482	28.979	28.979	65.982
414	3.275	90.907	93.194	88.729	99.695	99.532	83.330	83.330	96.445
7	3.540	88.181	86.192	90.264	99.745	99.384	78.860	78.860	92.969
317	3.743	70.786	55.895	96.492	99.942	98.728	54.782	54.782	77.919
24	3.855	84.851	74.883	97.880	99.939	99.032	73.688	73.688	87.411
406	4.064	84.605	96.178	75.518	99.012	98.925	73.318	73.318	97.595
378	4.442	87.368	86.221	88.546	99.703	99.353	77.570	77.570	92.962
384	4.560	75.988	78.072	74.012	98.936	98.157	61.275	61.275	88.504
Average		78.453	75.352	85.736	99.595	98.949	68.475	68.475	87.473
Standard		14.125	20.118	9.150	0.369	0.446	16.692	16.692	9.984
258	5.156	90.632	90.164	91.104	99.528	99.052	82.869	82.869	94.846
8	5.396	84.190	90.800	78.478	98.465	98.020	72.697	72.697	94.632
47	5.617	73.842	63.956	87.344	99.621	98.220	58.531	58.531	81.788
208	5.635	50.413	39.390	70.001	99.194	96.467	33.701	33.701	69.292
322	5.765	75.552	94.143	63.093	97.691	97.548	60.710	60.710	95.917
392	5.809	82.742	74.466	93.088	99.752	98.668	70.564	70.564	87.109
416	5.854	75.779	87.991	66.544	97.474	96.962	61.004	61.004	92.733
373	5.912	73.768	80.140	68.335	97.704	96.681	58.439	58.439	88.922
343	6.918	85.149	88.987	81.627	98.181	97.415	74.138	74.138	93.584
92	7.042	85.133	86.435	83.870	98.766	97.913	74.115	74.115	92.600
401	7.099	87.109	88.069	86.171	98.683	97.778	77.162	77.162	93.376
22	7.185	74.356	60.073	97.549	99.856	98.389	59.179	59.179	79.964
224	7.539	82.576	86.740	78.793	97.406	96.339	70.323	70.323	92.073
352	8.037	85.080	79.125	91.959	99.304	97.481	74.004	74.004	89.215
407	8.153	75.086	75.849	74.337	98.255	98.855	60.110	60.110	87.052
116	9.161	70.523	59.903	85.721	98.267	92.590	54.468	54.468	79.085
96	9.523	81.692	69.644	98.782	99.874	96.019	69.051	69.051	84.759
Average		78.447	77.404	82.164	98.707	97.081	65.357	65.357	88.056
Standard		8.981	14.278	10.571	0.836	1.397	11.155	11.155	6.949
Average		75.905	76.592	80.434	99.099	97.989	63.048	63.048	87.845
Standard		14.491	15.590	17.851	0.817	1.500	16.240	16.240	7.643

Lung window(15 epoch, lr: 1e-5)

전체	크기	F1	Recall	Precision	SPEC	ACC	IoU	JACCARD	Balanced A
288	1.408	43.536	63.462	33.133	99.592	99.478	27.825	27.825	81.527
98	1.924	91.872	88.246	95.810	99.966	99.864	84.966	84.966	88.580
383	2.072	51.511	87.871	36.435	99.049	98.980	34.691	34.691	93.460
114	2.195	84.922	91.405	79.298	99.634	99.510	73.796	73.796	95.520
369	2.255	80.536	73.197	89.511	99.932	99.723	67.415	67.415	86.565
359	2.360	80.418	72.756	89.883	99.893	99.542	67.249	67.249	86.324
Average		72.133	79.489	70.678	99.678	99.516	59.323	59.323	88.663
Standard		17.961	10.253	25.858	0.316	0.275	20.794	20.794	4.670
14	3.066	54.651	43.281	74.123	99.704	98.618	37.600	37.600	71.492
414	3.275	92.350	93.024	91.687	99.783	99.613	85.788	85.788	96.403
7	3.540	88.179	88.138	88.219	99.678	99.370	78.857	78.857	93.908
317	3.743	76.474	71.751	81.864	99.549	98.783	61.910	61.910	85.650
24	3.855	87.758	79.657	97.693	99.929	99.196	78.187	78.187	89.793
406	4.064	81.079	95.913	70.219	98.712	98.626	68.179	68.179	97.313
378	4.442	85.087	94.785	77.190	99.254	99.138	74.045	74.045	97.020
384	4.560	76.324	79.430	73.451	98.886	98.159	61.712	61.712	89.158
Average		80.238	80.748	81.806	99.437	98.938	68.285	68.285	90.092
Standard		11.038	16.279	9.189	0.413	0.444	14.030	14.030	8.071
258	5.156	89.781	93.011	86.767	99.240	98.923	81.456	81.456	96.125
8	5.396	81.578	91.767	73.426	97.952	97.593	68.888	68.888	94.860
47	5.617	74.573	65.947	85.795	99.554	98.234	59.455	59.455	82.750
208	5.635	55.665	45.579	71.483	99.131	96.690	38.567	38.567	72.355
322	5.765	77.181	95.461	64.777	97.824	97.729	62.842	62.842	96.643
392	5.809	89.118	83.594	95.422	99.820	99.125	80.371	80.371	91.707
416	5.854	76.641	86.286	68.936	97.780	97.159	62.129	62.129	92.033
373	5.912	75.054	82.027	69.173	97.740	96.825	60.069	60.069	89.883
343	6.918	85.065	88.432	81.944	98.230	97.414	74.011	74.011	93.331
92	7.042	84.005	91.058	77.966	98.089	97.603	72.422	72.422	94.574
401	7.099	88.100	94.103	82.817	98.181	97.833	78.731	78.731	96.142
22	7.185	76.518	63.408	96.461	99.778	96.608	61.966	61.966	81.593
224	7.539	86.916	89.702	84.298	98.143	97.299	76.860	76.860	93.922
352	8.037	84.284	78.326	91.224	99.242	97.332	72.837	72.837	88.784
407	8.153	71.687	78.198	66.177	97.336	96.141	55.869	55.869	87.767
116	9.161	43.132	27.946	94.465	99.716	89.095	27.496	27.496	63.831
96	9.523	81.741	69.991	98.234	99.816	96.012	69.121	69.121	84.903
Average		77.708	77.932	81.727	98.681	96.919	64.888	64.888	88.306
Standard		11.818	17.971	10.894	0.851	2.120	13.999	13.999	8.746
Average		77.314	78.944	79.814	99.075	97.935	64.787	64.787	88.825
Standard		13.559	16.619	15.555	0.819	1.992	16.092	16.092	8.103

2.5D Lung window(7 epoch, lr: 1e-4)

Fold 2(epoch: 30, lr: 1e-5)

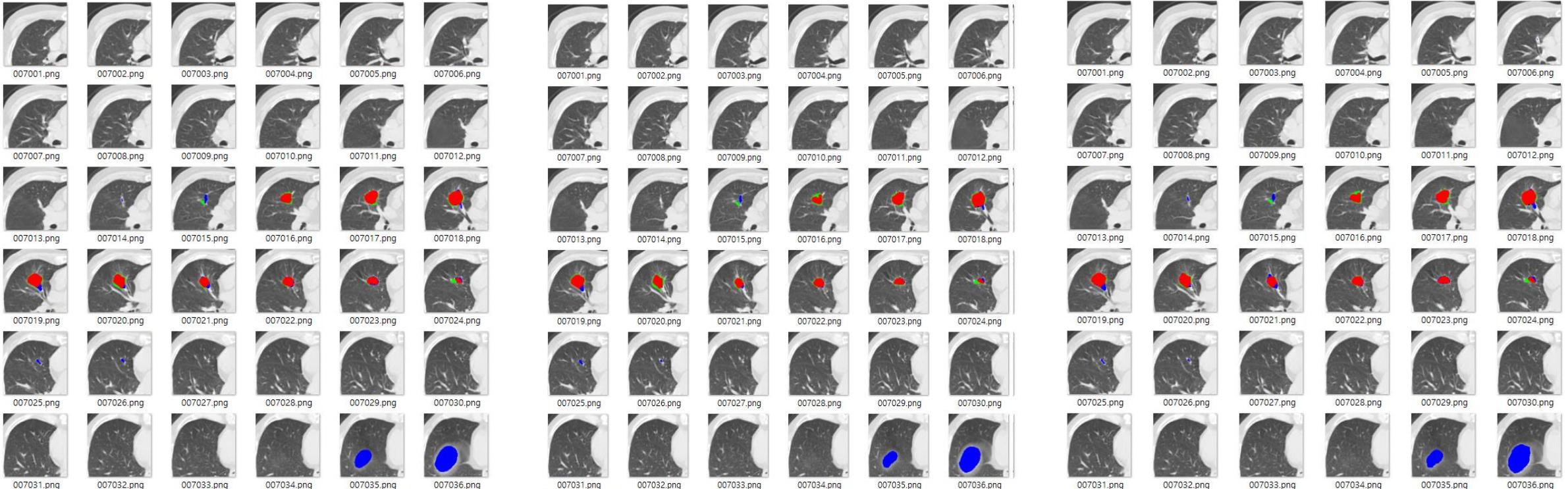
전체	크기	F1	Recall	Precision	SPEC	ACC	IoU	JACCARD	Balanced A
288	1.408	43.177	74.231	30.442	99.460	99.380	27.532	27.532	86.845
98	1.924	58.911	41.754	100.000	100.000	99.493	41.754	41.754	70.877
383	2.072	65.340	86.716	52.419	99.512	99.433	48.523	48.523	93.114
114	2.195	85.833	94.034	78.947	99.616	99.532	75.182	75.182	96.825
369	2.255	76.232	68.616	85.749	99.910	99.665	61.592	61.592	84.263
359	2.360	74.900	66.614	85.541	99.853	99.423	59.873	59.873	83.233
Average		67.399	71.994	72.183	99.725	99.488	52.409	52.409	85.880
Standard		13.767	16.645	23.505	0.206	0.093	15.309	15.309	8.244
14	3.066	51.481	42.359	65.610	99.564	98.464	34.663	34.663	70.962
414	3.275	89.238	82.037	97.826	99.953	99.503	80.568	80.568	90.995
7	3.540	84.900	78.154	92.921	99.837	99.259	73.763	73.763	88.996
317	3.743	63.972	47.806	97.487	99.965	98.521	47.028	47.028	73.785
24	3.855	83.561	76.959	91.402	99.728	98.904	71.764	71.764	88.344
406	4.064	84.109	93.970	76.121	99.066	98.910	72.575	72.575	96.518
378	4.442	86.220	83.324	89.325	99.735	99.309	75.778	75.778	91.530
384	4.560	74.050	76.243	71.980	98.848	98.004	58.793	58.793	87.546
Average		77.191	72.581	85.334	99.587	98.859	64.367	64.367	86.084
Standard		12.350	16.819	11.545	0.387	0.472	15.071	15.071	8.354
258	5.156	89.748	85.373	94.596	99.739	99.008	81.403	81.403	92.556
8	5.396	79.704	91.928	70.349	97.611	97.281	66.256	66.256	94.770
47	5.617	69.652	56.812	89.989	99.742	98.056	53.435	53.435	78.277
208	5.635	47.543	36.092	69.637	99.248	98.369	31.185	31.185	67.670
322	5.765	79.633	86.174	74.015	98.732	98.226	66.159	66.159	92.453
392	5.809	80.175	73.224	88.584	99.577	98.448	66.910	66.910	86.401
416	5.854	74.582	83.647	67.290	97.679	96.921	59.467	59.467	90.663
373	5.912	71.383	70.517	72.270	98.327	96.708	55.500	55.500	84.422
343	6.918	85.459	87.769	83.266	98.398	97.513	74.609	74.609	93.084
92	7.042	86.638	91.235	82.482	98.561	98.055	76.426	76.426	94.898
401	7.099	85.805	85.425	86.188	98.724	97.591	75.139	75.139	92.075
22	7.185	77.070	64.075	96.677	99.790	96.677	62.694	62.694	81.932
224	7.539	87.187	86.230	88.167	98.714	97.465	77.285	77.285	92.472
352	8.037	83.152	73.700	95.385	99.642	97.272	71.163	71.163	86.671
407	8.153	75.992	69.775	83.425	99.076	97.245	61.280	61.280	84.426
116	9.161	48.606	33.185	90.804	99.416	89.615	32.106	32.106	66.300
96	9.523	81.366	69.701	97.719	99.762	95.928	68.585	68.585	84.732
Average		76.688	73.227	84.167	98.985	96.963	63.506	63.506	86.106
Standard		11.768	17.141	9.786	0.694	1.987	13.857	13.857	8.397
Average		75.052	72.708	82.488	99.298	97.939	61.673	61.673	86.003
Standard		13.095	17.239	14.887	0.655	1.883	15.394	15.394	8.491

Mediastinal window

전체	크기	F1	Recall	Precision	SPEC	ACC	IoU	JACCARD	Balanced A
288	1.408	16.852	64.231	9.698	98.096	97.988	9.201	9.201	81.163
98	1.924	66.511	49.825	100.000	100.000	99.564	49.825	49.825	74.912
383	2.072	67.871	72.855	63.525	99.741	99.575	51.367	51.367	86.298
114	2.195	86.086	86.957	85.233	99.769	99.576	75.571	75.571	93.363
369	2.255	70.165	56.043	93.801	99.971	99.627	54.041	54.041	78.007
359	2.360	70.000	54.567	97.606	99.982	99.396	53.846	53.846	77.275
Average		62.914	64.079	74.977	99.593	99.288	48.975	48.975	81.836
Standard		21.599	12.640	31.597	0.678	0.585	19.770	19.770	6.280
14	3.066	46.598	36.044	65.894	99.634	98.410	30.377	30.377	67.839
414	3.275	88.267	80.919	97.084	99.937	99.460	78.999	78.999	90.428
7	3.540	79.841	68.880	94.949	99.900	99.073	66.446	66.446	84.390
317	3.743	66.222	51.992	91.179	99.857	98.537	49.502	49.502	75.925
24	3.855	78.611	67.709	93.698	99.829	98.667	64.760	64.760	83.769
406	4.064	85.257	90.855	80.309	99.294	99.035	74.302	74.302	95.075
378	4.442	84.717	80.192	89.783	99.757	99.250	73.486	73.486	89.974
384	4.560	75.771	76.815	74.754	98.993	98.165	60.993	60.993	87.904
Average		75.661	69.176	85.956	99.650	98.825	62.358	62.358	84.413
Standard		12.713	16.518	10.407	0.314	0.419	14.815	14.815	8.217
258	5.156	89.711	87.116	92.464	99.620	98.984	81.341	81.341	93.368
8	5.396	79.080	81.923	76.428	98.442	97.483	65.399	65.399	90.182
47	5.617	55.420	40.511	87.690	99.768	97.440	38.331	38.331	70.139
208	5.635	55.091	41.404	82.293	99.574	96.922	38.018	38.018	70.489
322	5.765	79.906	83.047	76.993	98.960	98.319	66.536	66.536	91.003
392	5.809	84.384	74.094	97.991	99.932	98.824	72.986	72.986	87.013
416	5.854	75.002	77.048	73.063	98.378	97.226	60.003	60.003	87.713
373	5.912	65.441	59.217	73.127	98.655	96.358	48.634	48.634	78.936
343	6.918	83.578	91.677	76.794	97.484	97.000	71.789	71.789	94.580
92	7.042	87.198	85.849	88.590	99.179	98.257	77.302	77.302	92.514
401	7.099	86.760	81.914	92.217	99.356	97.869	76.617	76.617	90.635
22	7.185	72.509	57.759	97.376	99.851	96.183	56.874	56.874	78.805
224	7.539	81.839	85.451	78.520	97.402	96.207	69.261	69.261	91.427
352	8.037	77.128	63.713	97.699	99.849	96.548	62.772	62.772	81.781
407	8.153	63.805	68.390	59.797	96.936	95.152	46.849	46.849	82.663
116	9.161	65.898	53.106	86.808	98.598	91.867	49.141	49.141	75.852
96	9.523	76.487	62.083	99.593	99.963	95.132	61.926	61.926	81.023
Average		75.249	70.253	84.556	98.938	96.810	61.399	61.399	84.596
Standard		10.414	15.560	10.838	0.931	1.652	12.964	12.964	7.611
Average		72.875	68.512	83.340	99.257	97.798	59.183	59.183	83.885
Standard		14.923	15.665	17.587	0.853	1.713	16.066	16.066	7.706

2.5D Mediastinal window

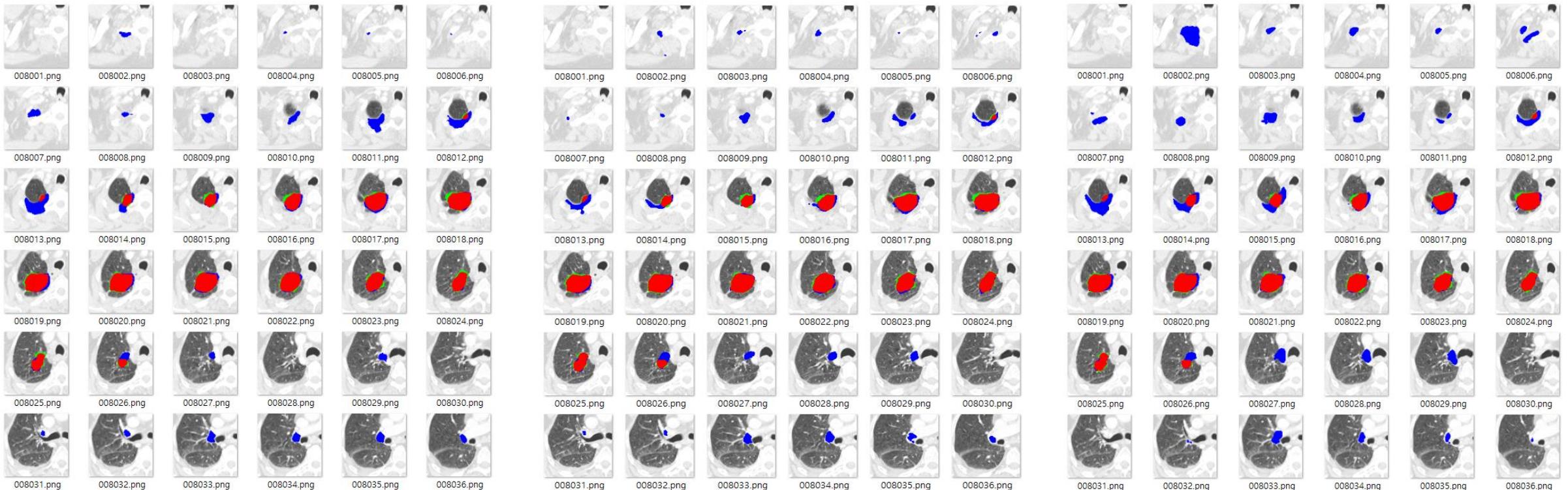
Fold 2 Lung Images Comparision



2.5D, lr = 1e-5

2.5D, lr = 1e-4

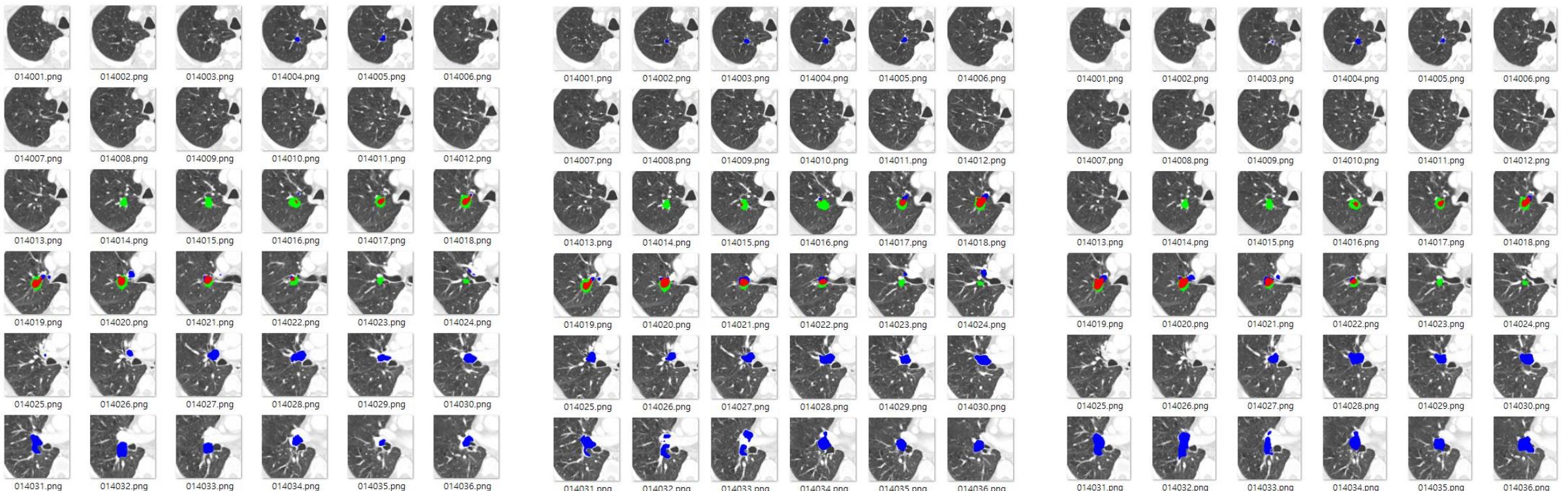
Fold 2 Lung Images Comparision



2.5D, lr = 1e-5

2.5D, lr = 1e-4

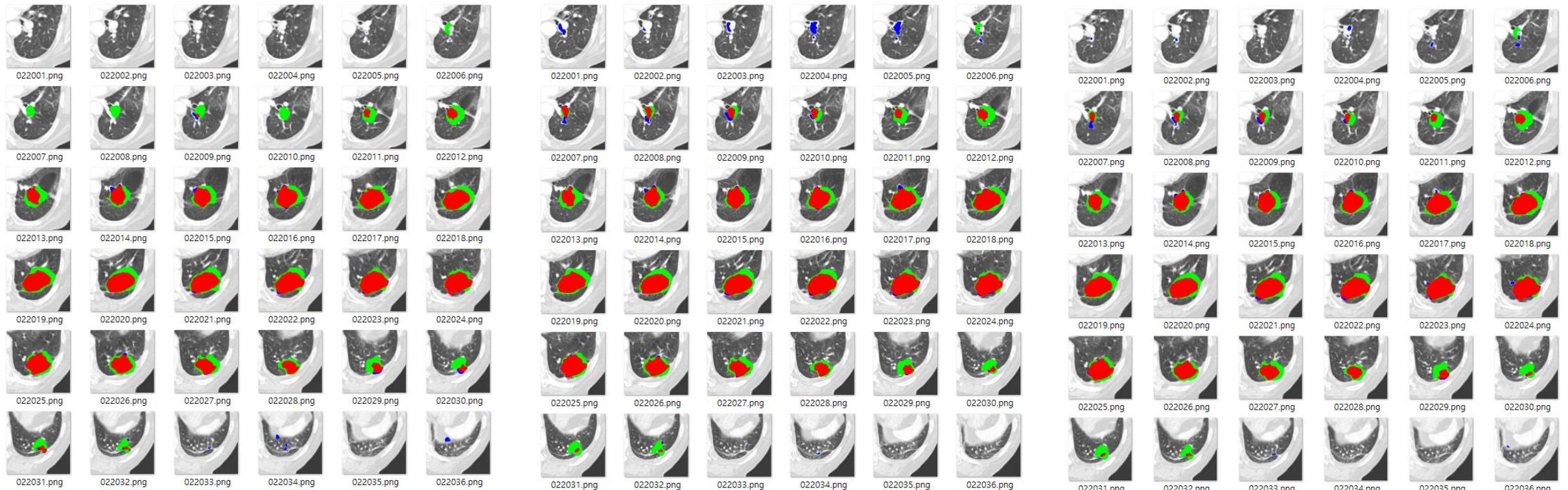
Fold 2 Lung Images Comparision



2.5D, lr = 1e-5

2.5D, lr = 1e-4

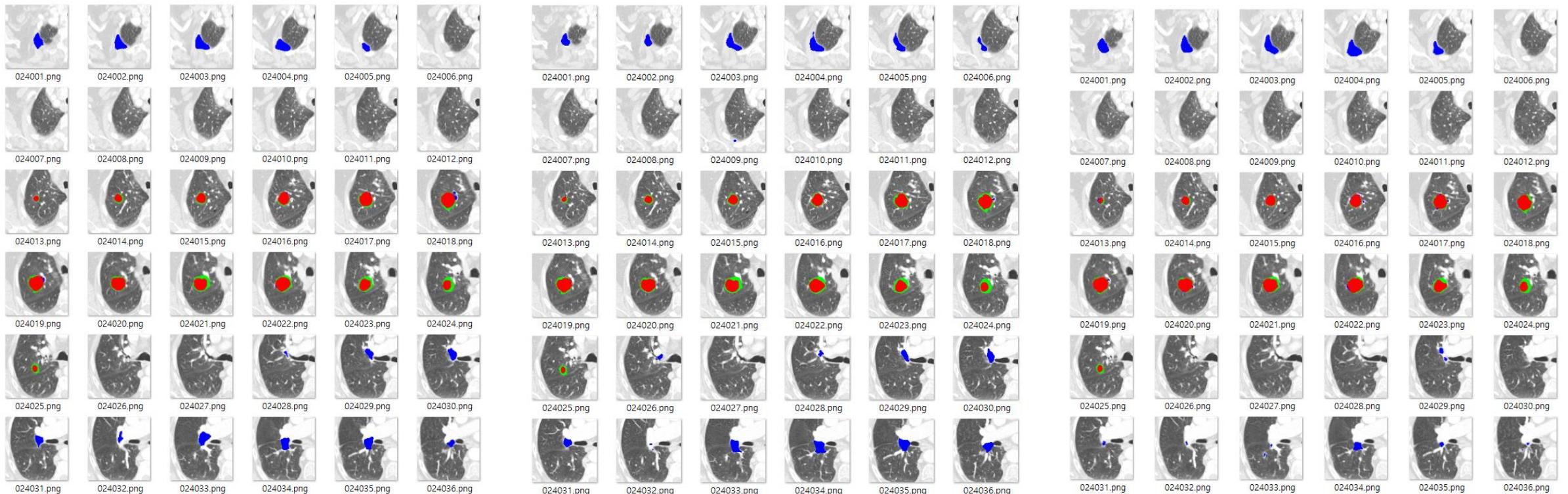
Fold 2 Lung Images Comparision



2.5D, lr = 1e-5

2.5D, lr = 1e-4

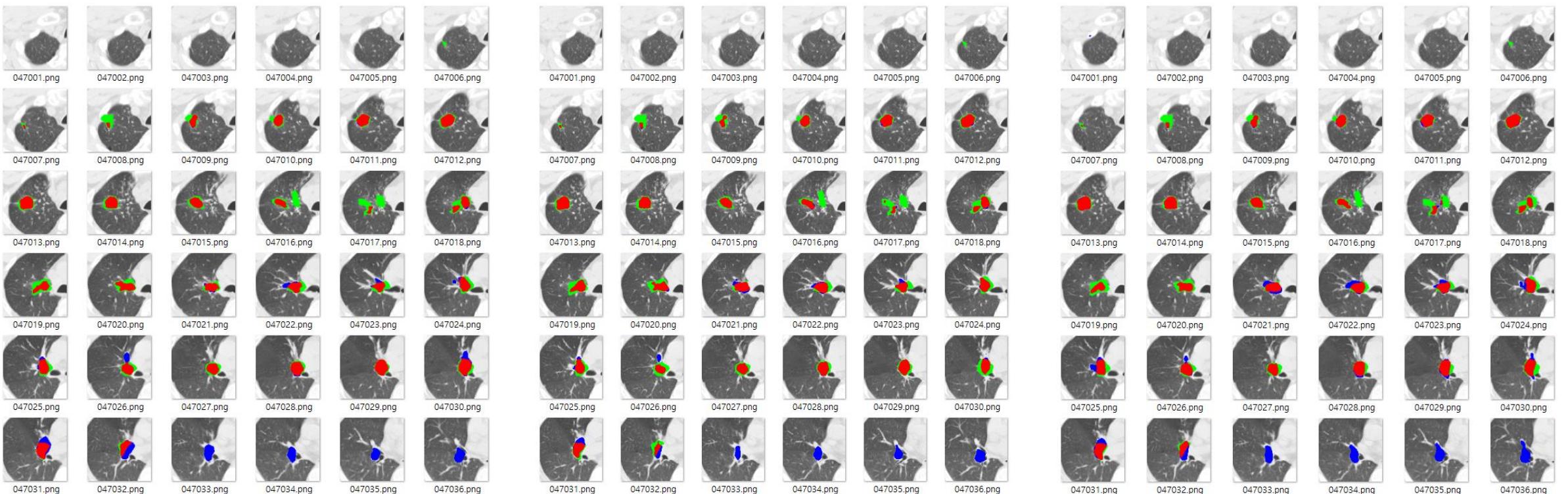
Fold 2 Lung Images Comparision



$2.5D, lr = 1e-5$

$2.5D, lr = 1e-4$

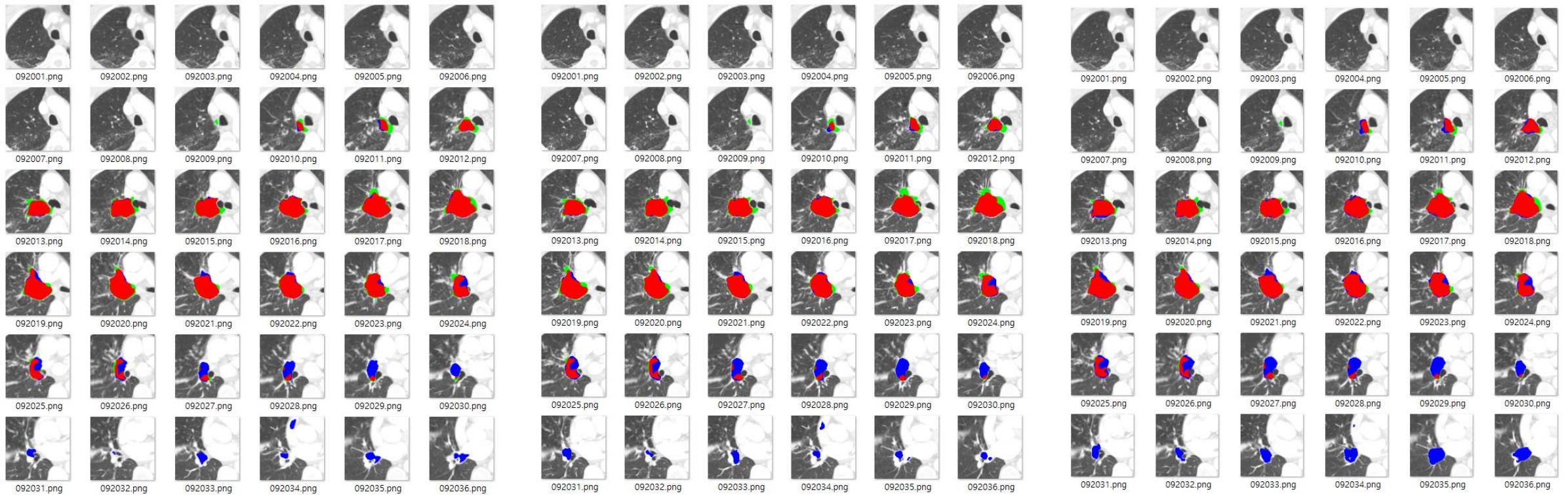
Fold 2 Lung Images Comparision



2.5D, lr = 1e-5

2.5D, lr = 1e-4

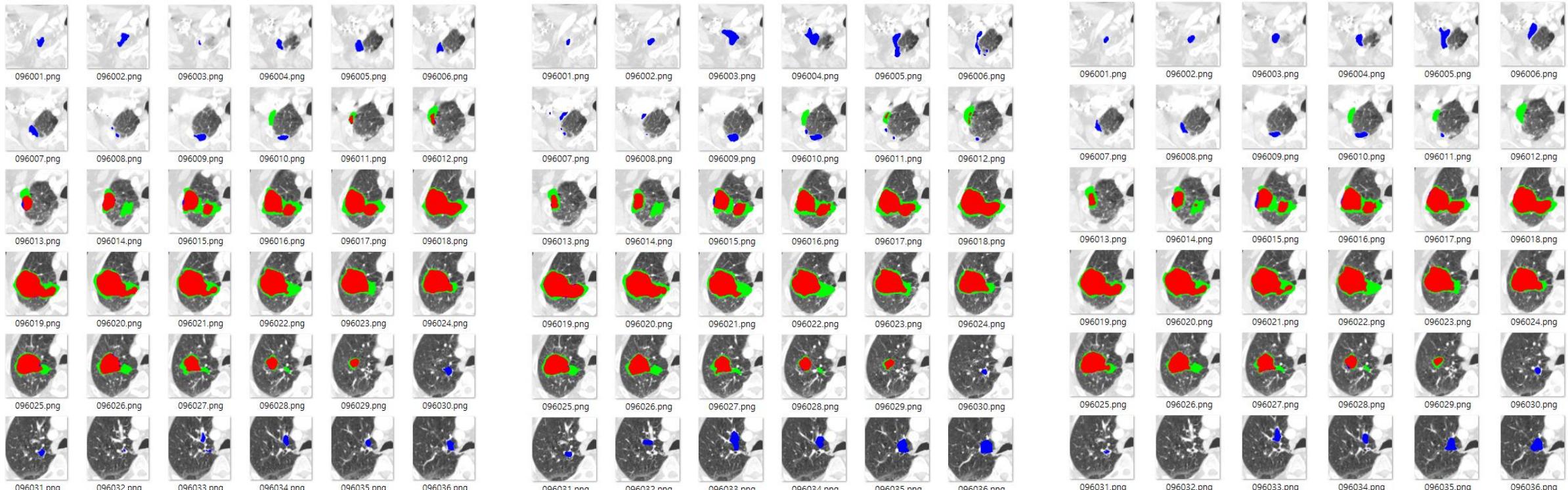
Fold 2 Lung Images Comparision



$2.5D, lr = 1e-5$

$2.5D, lr = 1e-4$

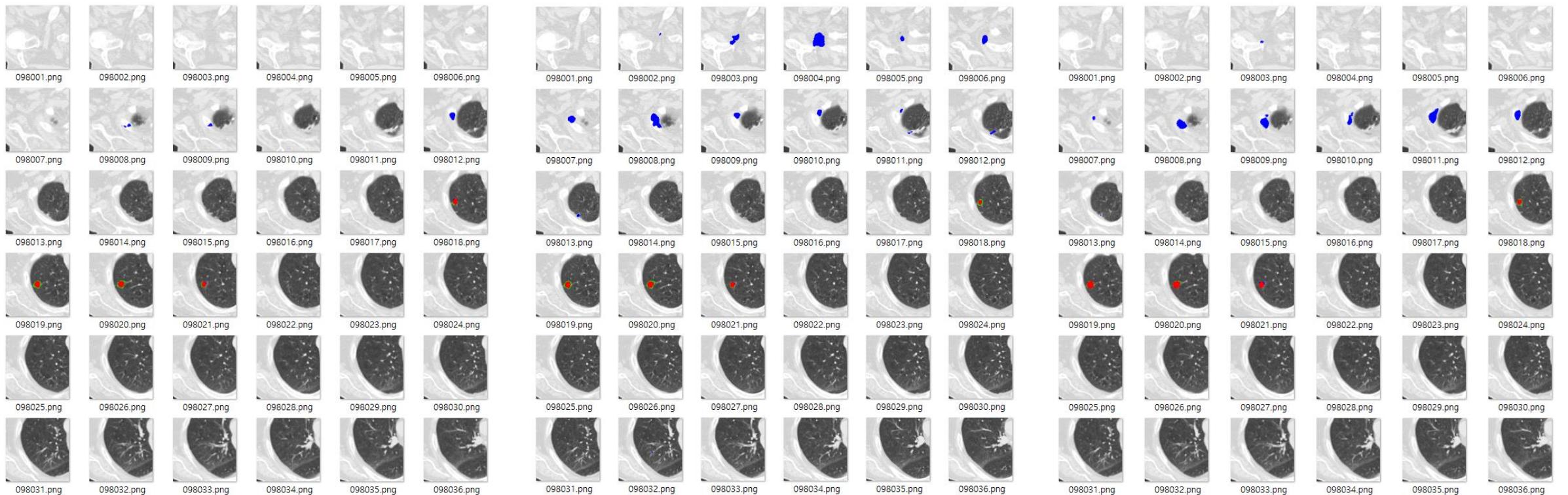
Fold 2 Lung Images Comparision



2.5D, $lr = 1e-5$

2.5D, $lr = 1e-4$

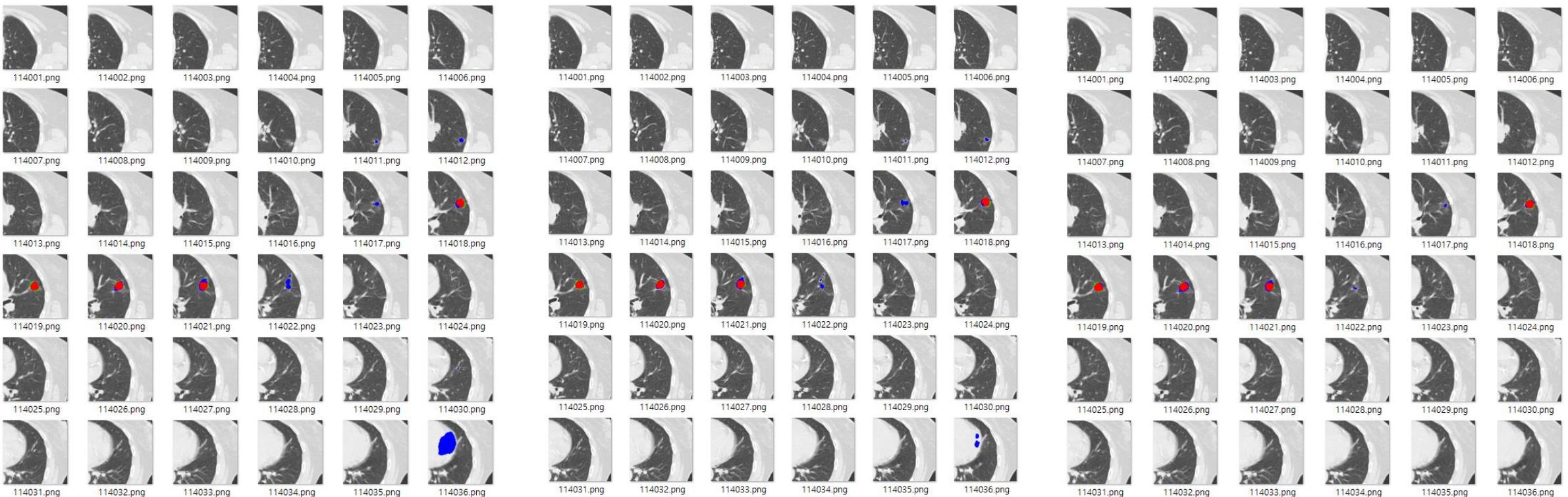
Fold 2 Lung Images Comparision



$2.5D, lr = 1e-5$

$2.5D, lr = 1e-4$

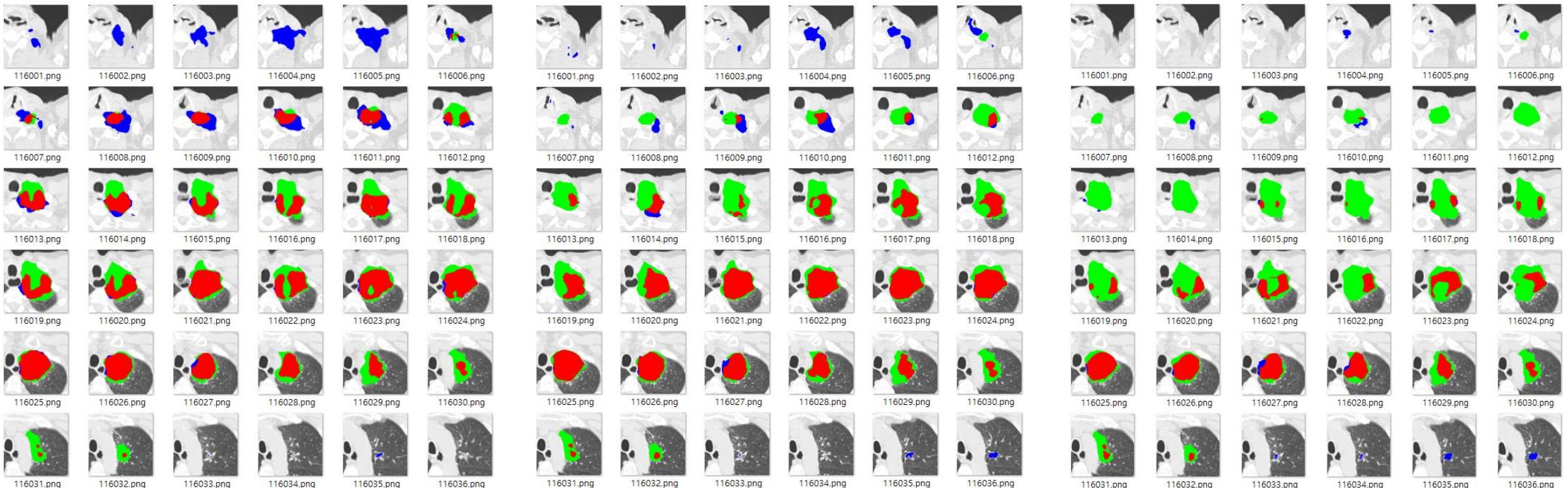
Fold 2 Lung Images Comparision



2.5D, $lr = 1e-5$

2.5D, $lr = 1e-4$

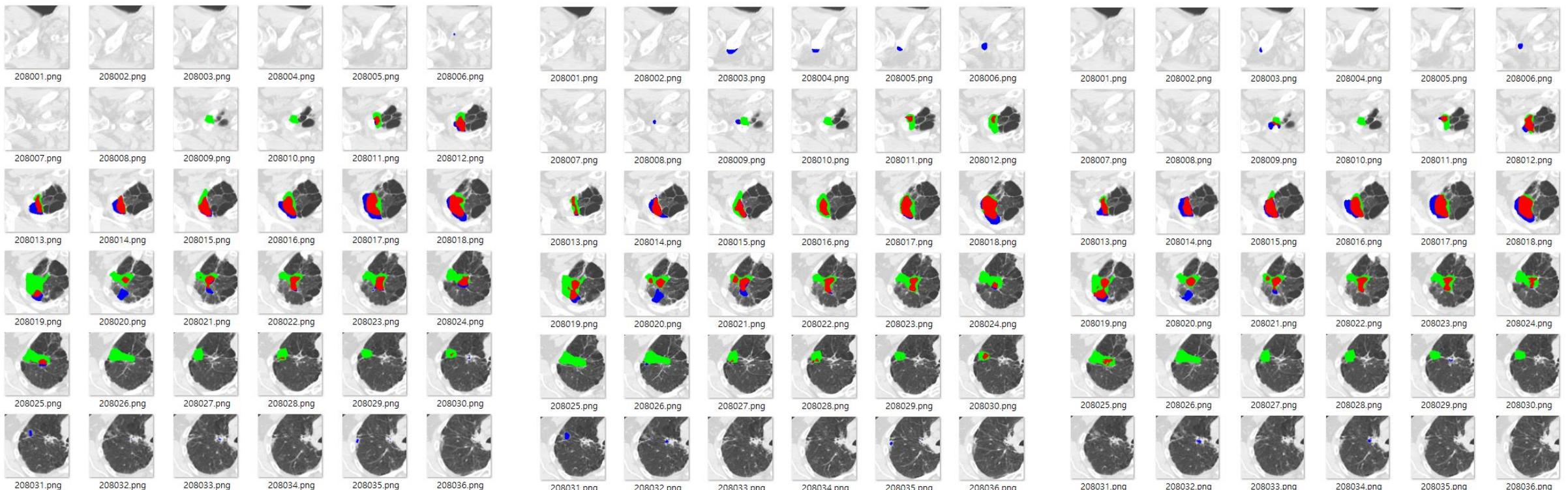
Fold 2 Lung Images Comparision



2.5D, $lr = 1e-5$

2.5D, $lr = 1e-4$

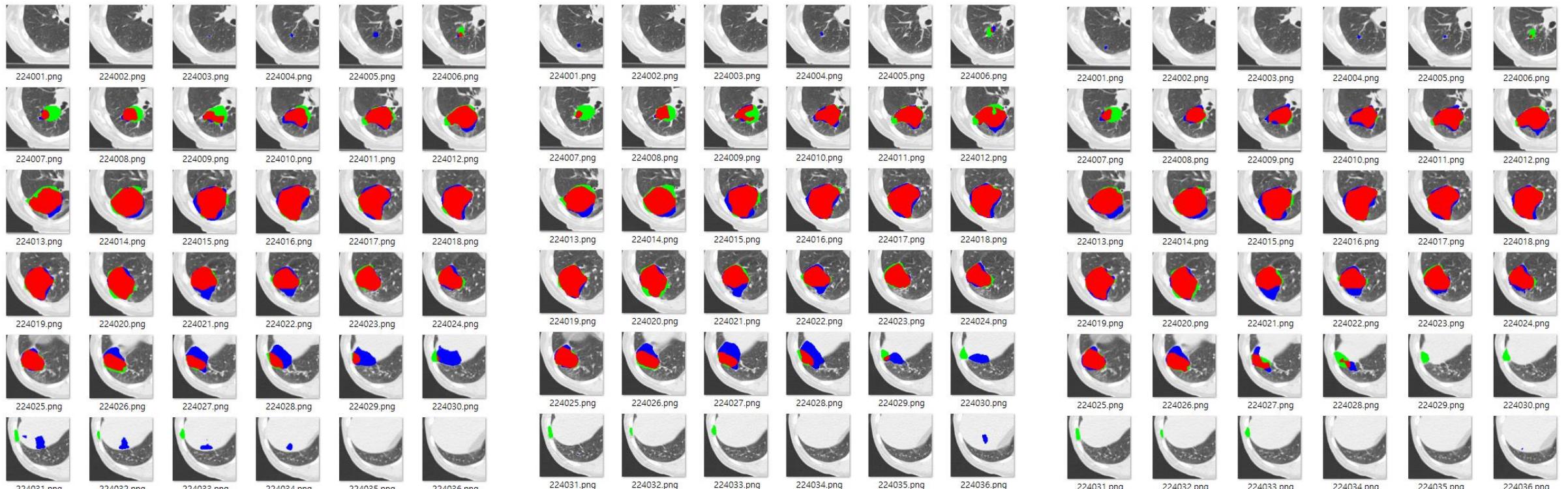
Fold 2 Lung Images Comparision



2.5D, lr = 1e-5

2.5D, lr = 1e-4

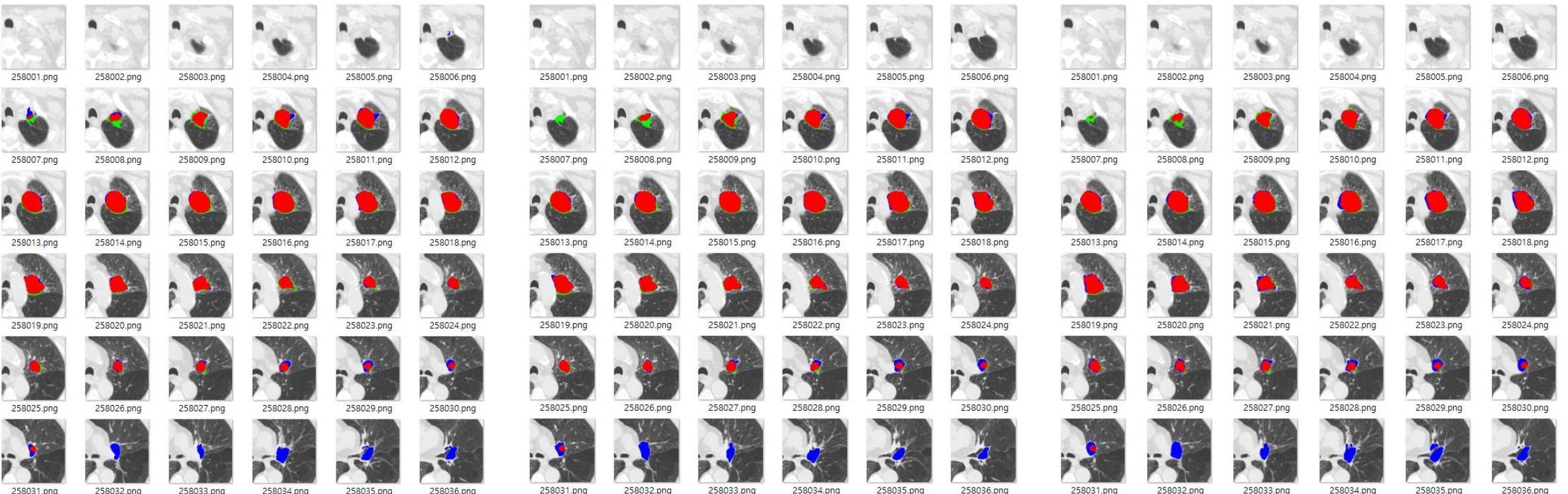
Fold 2 Lung Images Comparision



2.5D, lr = 1e-5

2.5D, lr = 1e-4

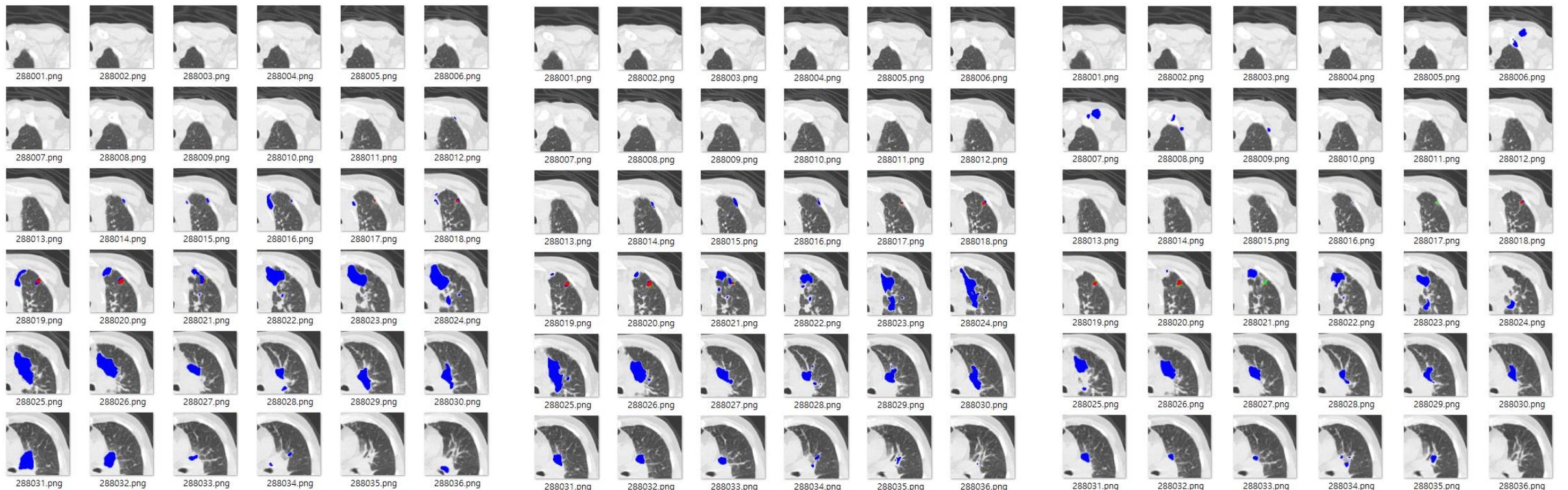
Fold 2 Lung Images Comparision



2.5D, lr = 1e-5

2.5D, lr = 1e-4

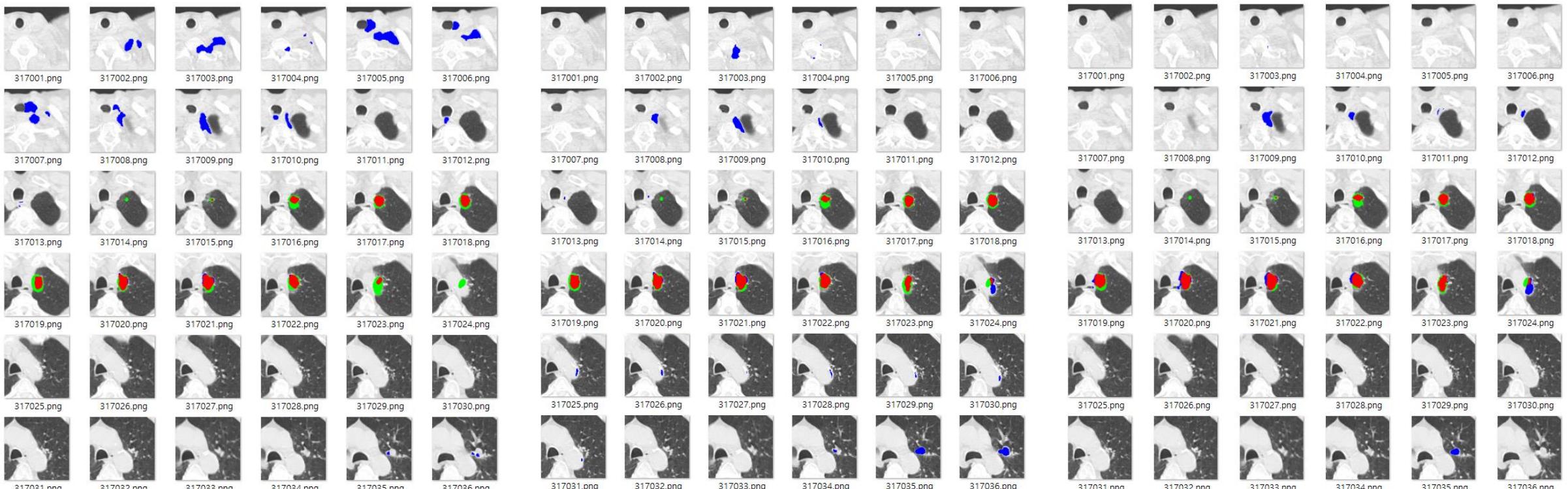
Fold 2 Lung Images Comparision



2.5D, lr = 1e-5

2.5D, lr = 1e-4

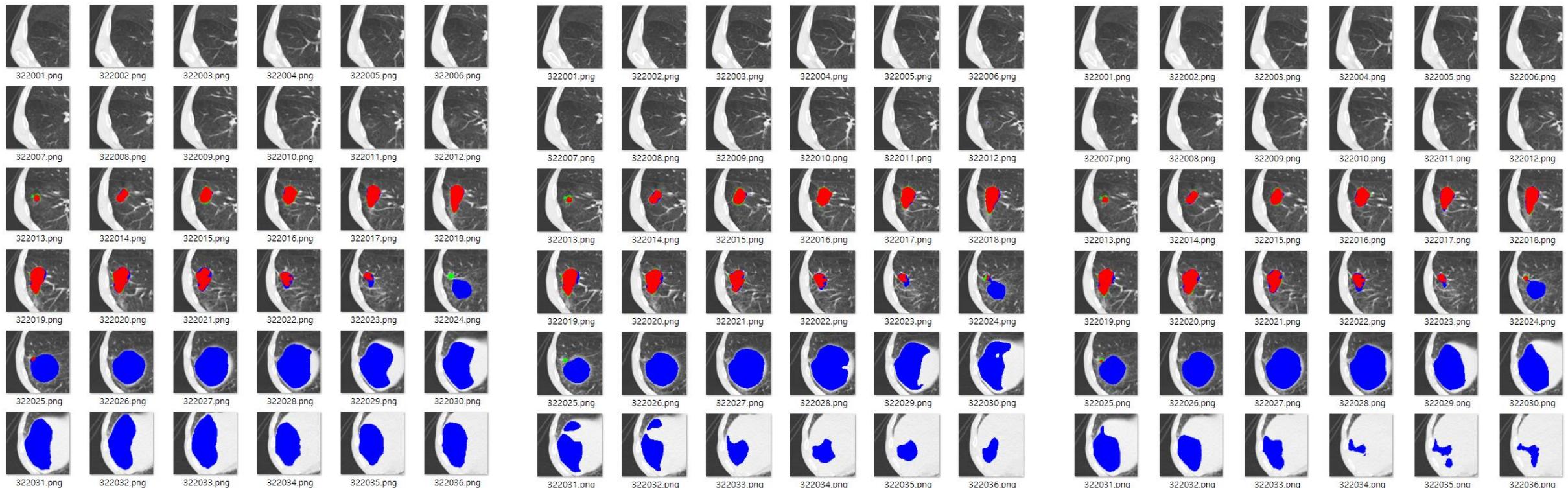
Fold 2 Lung Images Comparision



2.5D, lr = 1e-5

2.5D, lr = 1e-4

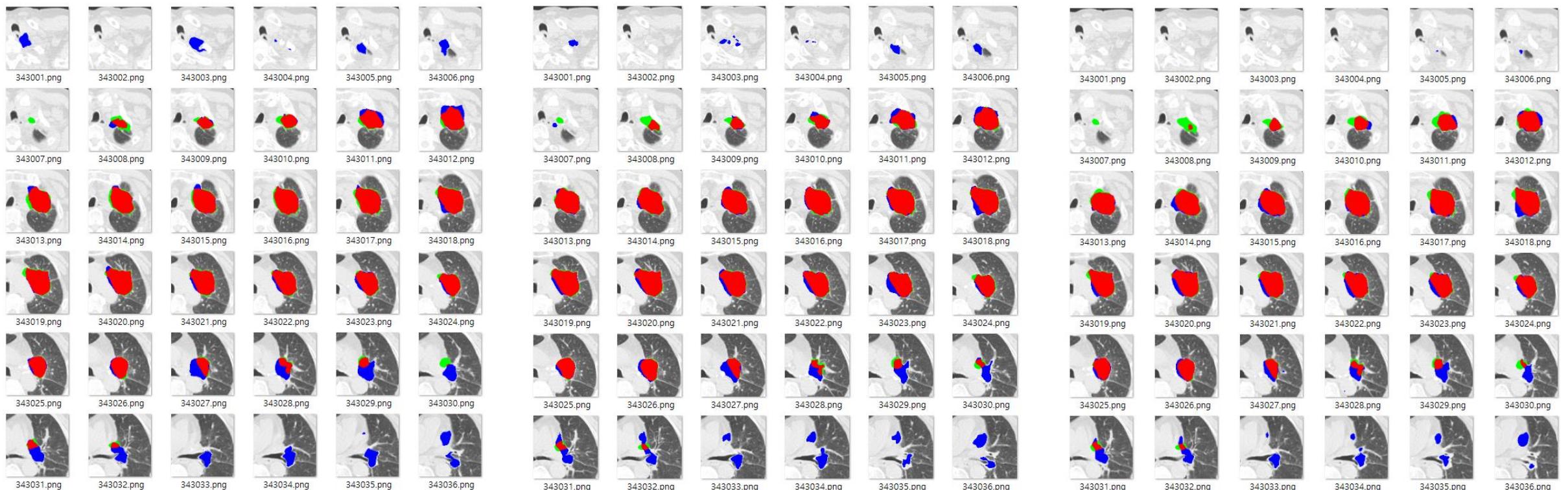
Fold 2 Lung Images Comparision



2.5D, lr = 1e-5

2.5D, lr = 1e-4

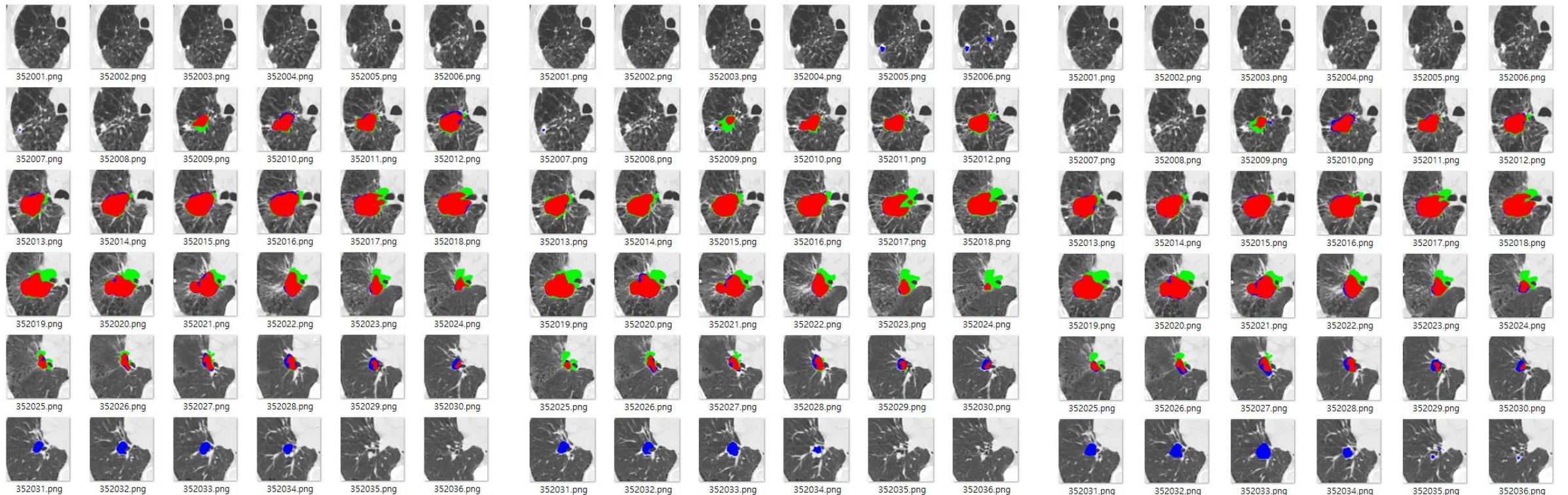
Fold 2 Lung Images Comparision



2.5D, lr = 1e-5

2.5D, lr = 1e-4

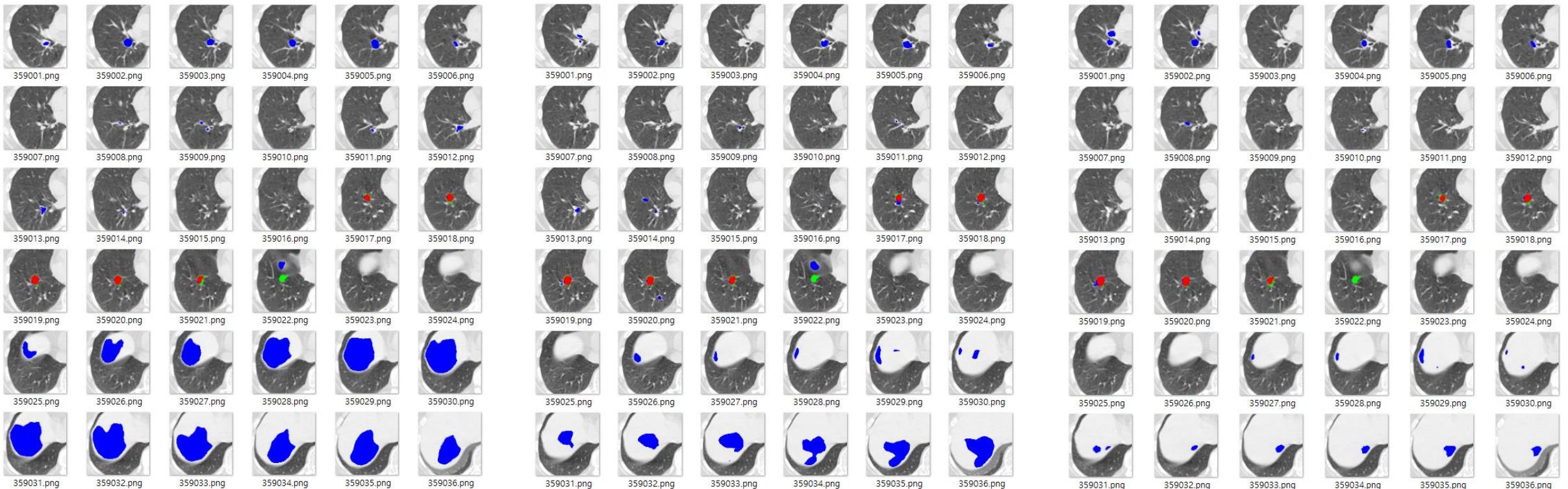
Fold 2 Lung Images Comparision



2.5D, lr = 1e-5

2.5D, lr = 1e-4

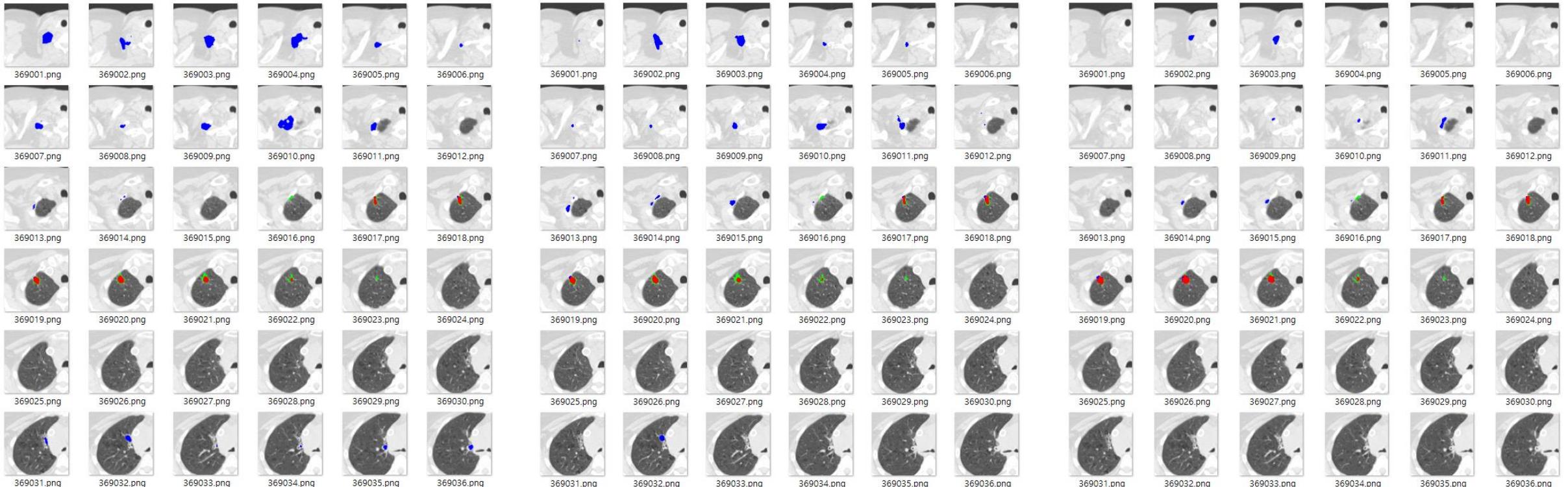
Fold 2 Lung Images Comparision



$2.5D, lr = 1e-5$

$2.5D, lr = 1e-4$

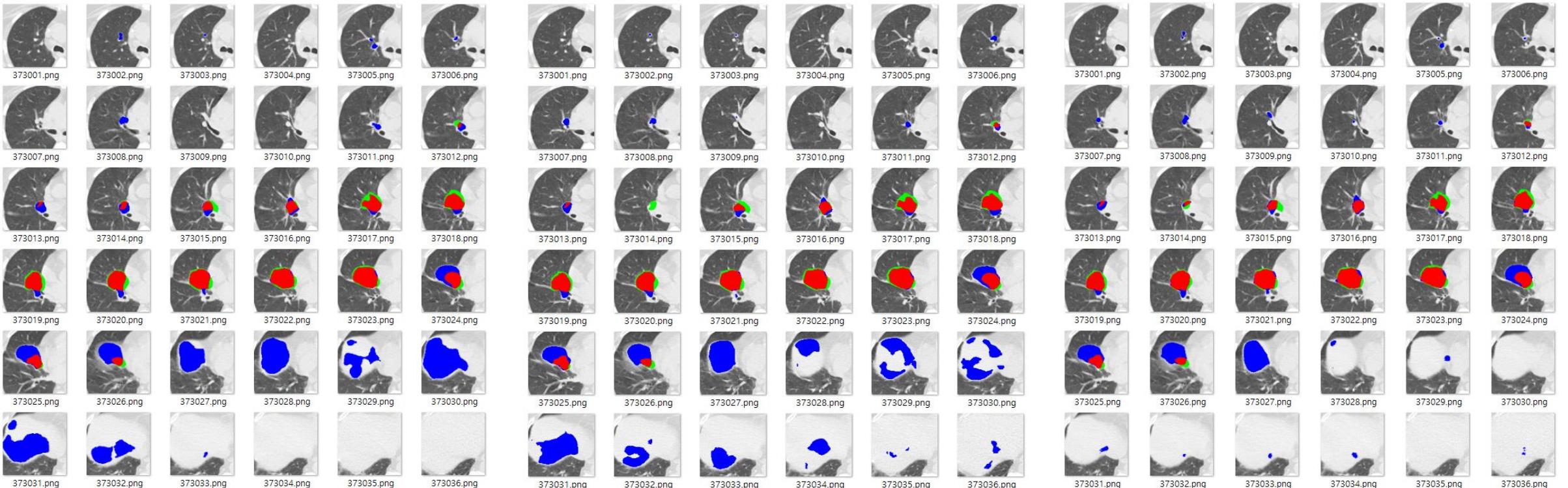
Fold 2 Lung Images Comparision



2.5D, lr = 1e-5

2.5D, lr = 1e-4

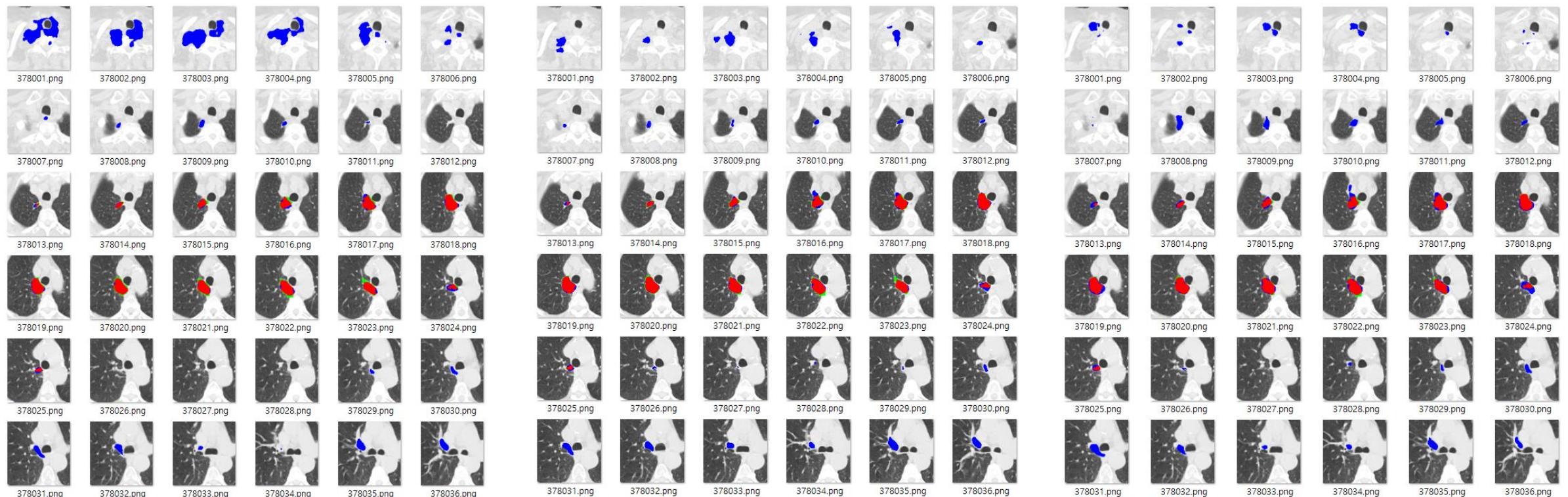
Fold 2 Lung Images Comparision



2.5D, lr = 1e-5

2.5D, lr = 1e-4

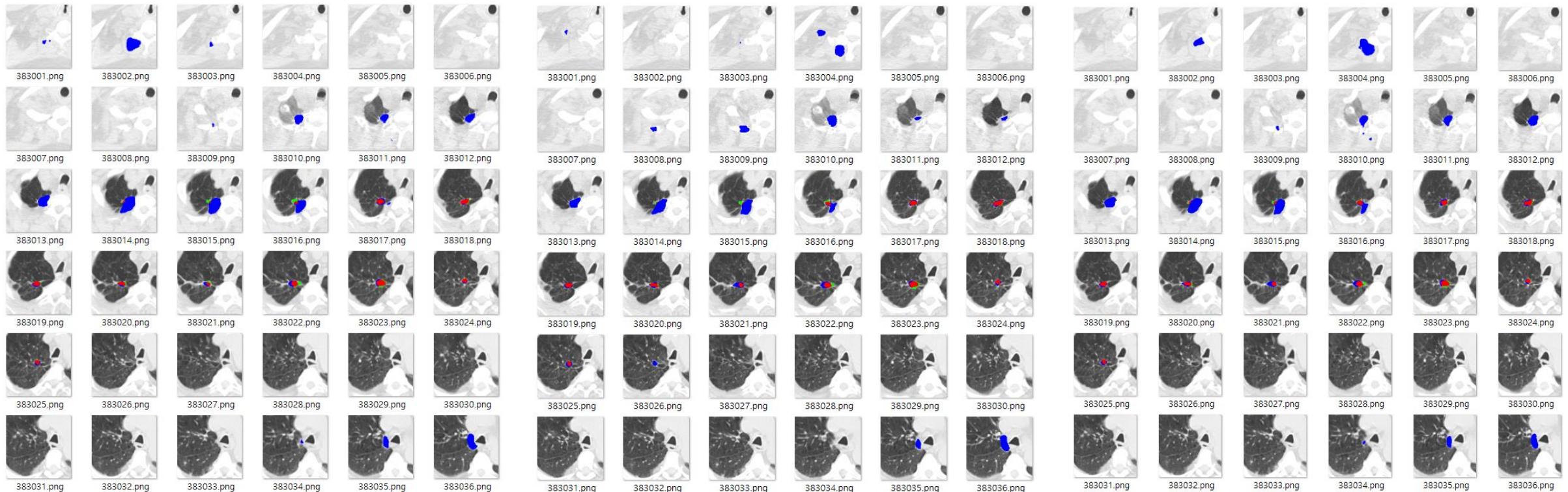
Fold 2 Lung Images Comparision



2.5D, $l_r = 1e-5$

2.5D, $l_r = 1e-4$

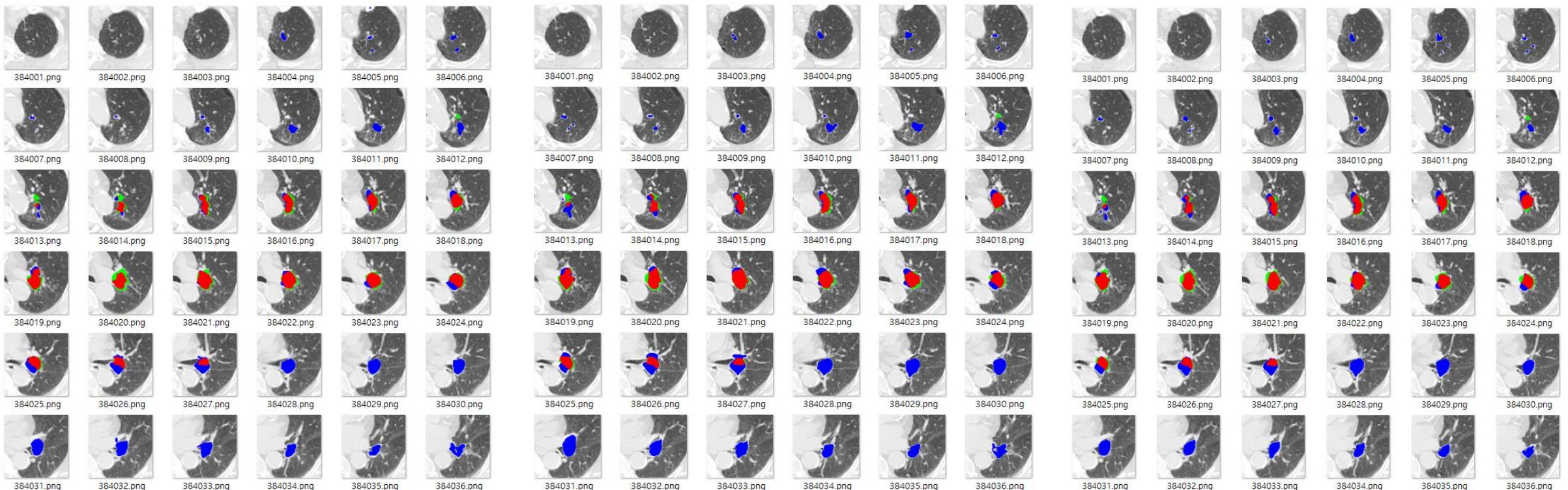
Fold 2 Lung Images Comparision



2.5D, lr = 1e-5

2.5D, lr = 1e-4

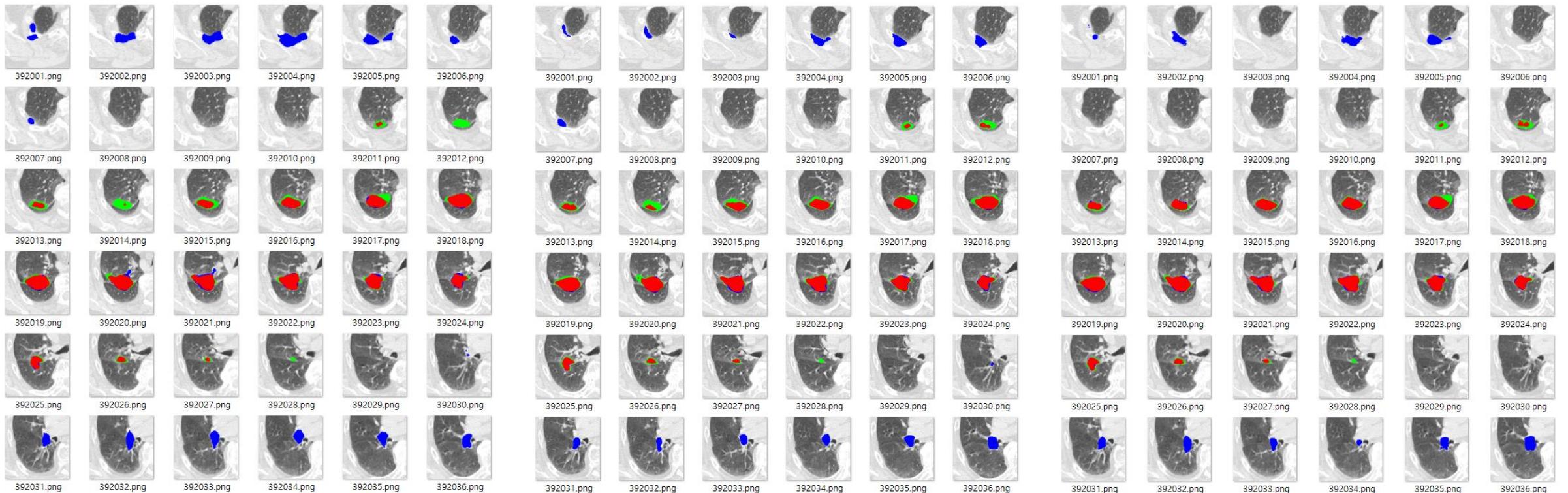
Fold 2 Lung Images Comparision



2.5D, $lr = 1e-5$

2.5D, $lr = 1e-4$

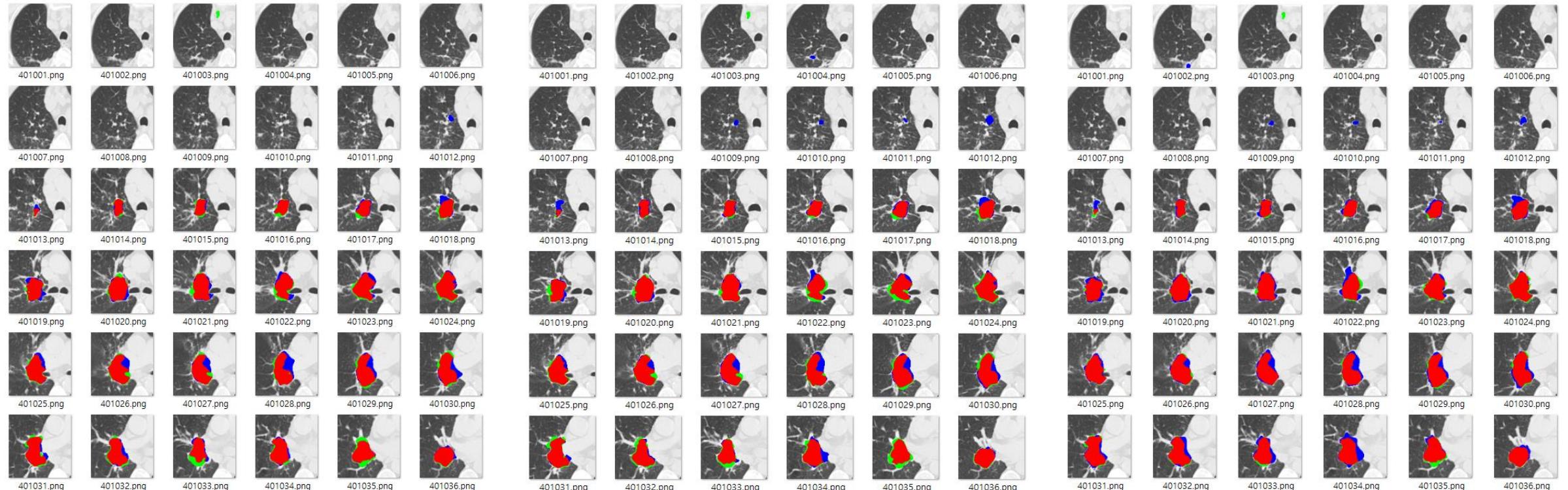
Fold 2 Lung Images Comparision



2.5D, lr = 1e-5

2.5D, lr = 1e-4

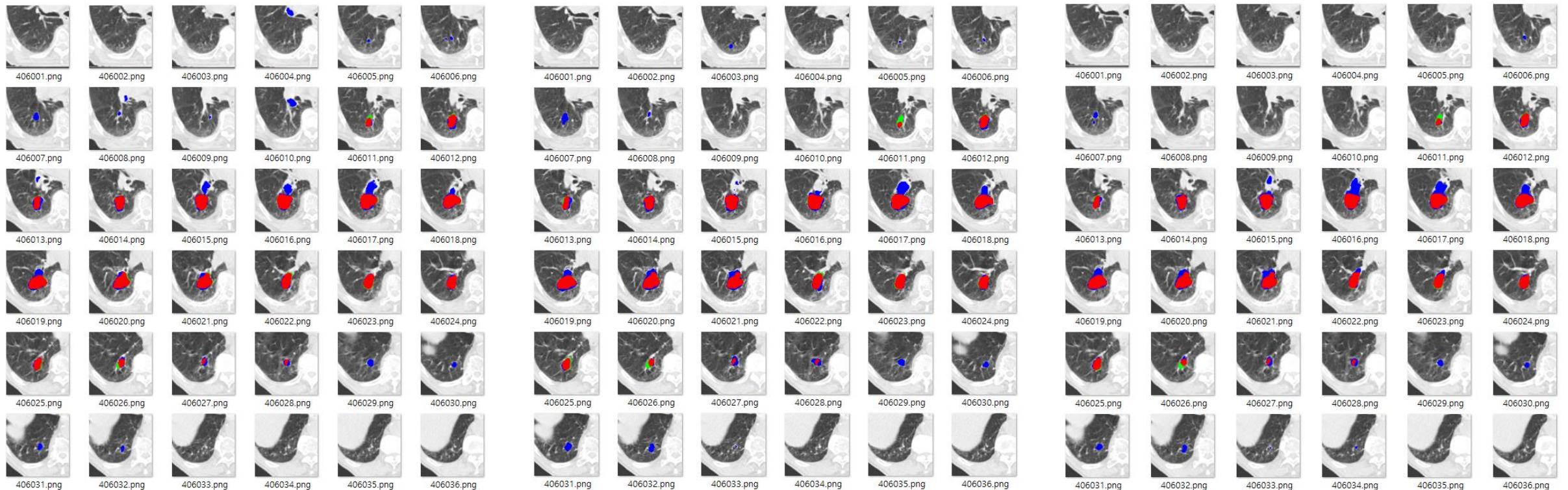
Fold 2 Lung Images Comparision



2.5D, lr = 1e-5

2.5D, lr = 1e-4

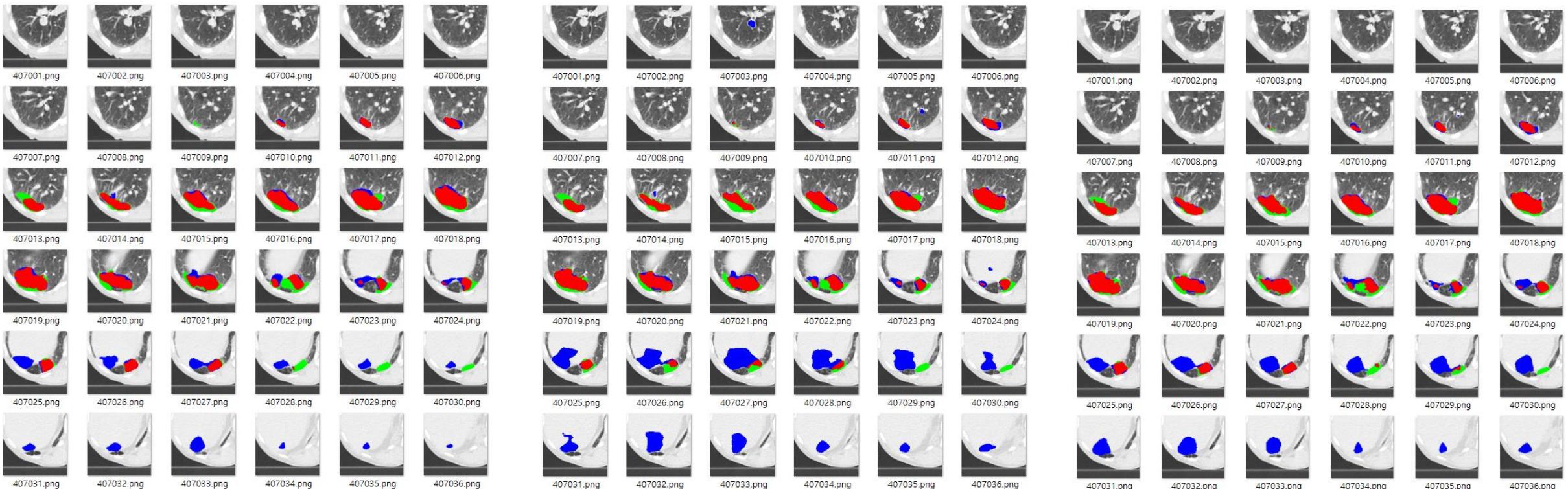
Fold 2 Lung Images Comparision



2.5D, lr = 1e-5

2.5D, lr = 1e-4

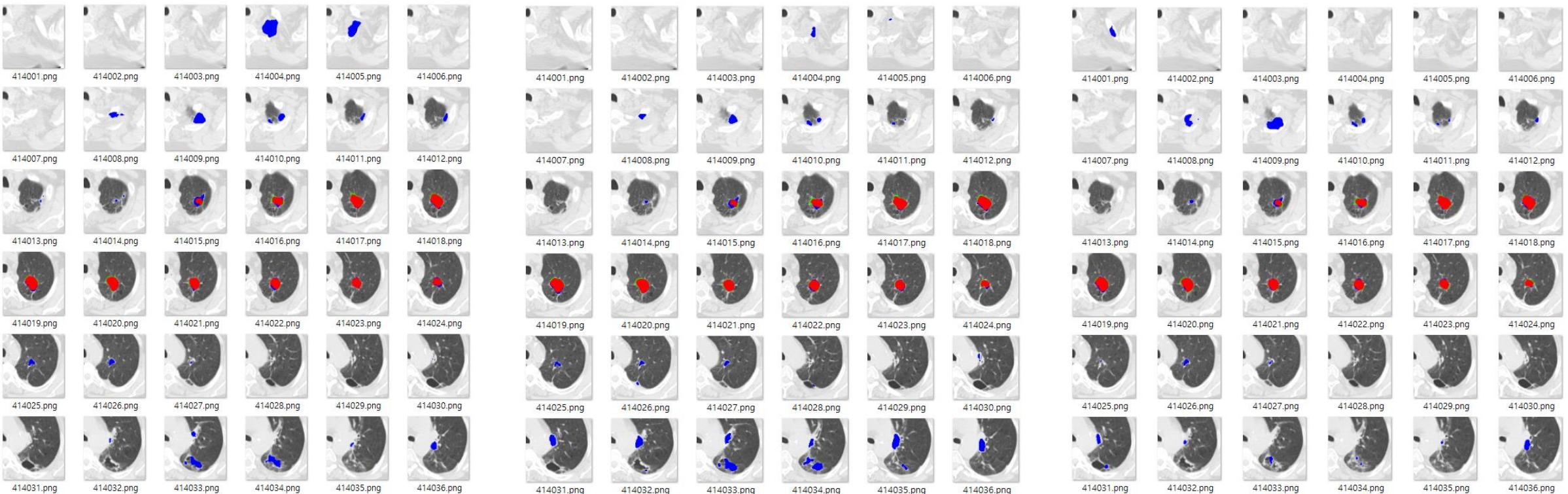
Fold 2 Lung Images Comparision



2.5D, lr = 1e-5

2.5D, lr = 1e-4

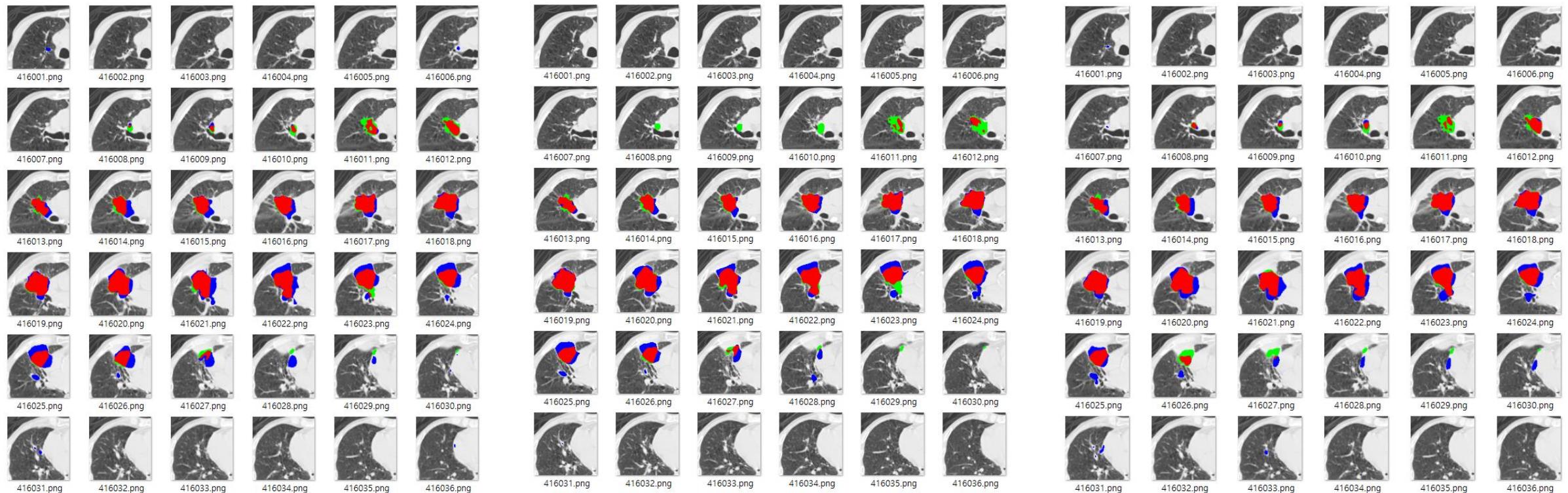
Fold 2 Lung Images Comparision



2.5D, lr = 1e-5

2.5D, lr = 1e-4

Fold 2 Lung Images Comparision



2.5D, lr = 1e-5

2.5D, lr = 1e-4