Supplementary Material

		Input: baseline acquisition					
		t=0 (baseline)	0<t<1 year	1<t<2 years	2<t<3 years	3<t<4 years	t > 4 years
K = 3	Mean Dice score (total RORA)	**0.85**	**0.79**	0.79	**0.74**	**0.78**	**0.83**
	Mean Dice score (RORA growth)	-	**0.47**	0.56	**0.60**	0.64	**0.75**
	Mean square root area error [mm]	0.143	0.195	0.229	**0.296**	0.366	**0.327**
K = 5	Mean Dice score (total RORA)	**0.85**	0.78	**0.80**	0.73	**0.78**	0.80
	Mean Dice score (RORA growth)	-	0.46	**0.57**	0.59	**0.65**	0.72
	Mean square root area error [mm]	0.126	**0.188**	**0.219**	0.309	**0.263**	**0.327**
K = 7	Mean Dice score (total RORA)	0.83	0.76	0.78	0.70	0.74	0.68
	Mean Dice score (RORA growth)	-	0.42	0.53	0.55	0.59	0.57
	Mean square root area error [mm]	**0.124**	0.250	0.282	0.352	0.296	0.669

Table 4. Ablation study, impact of number of output channels/Taylor series terms in testing scenario A, comparison to manual ground-truth

		Input: previous visit acquisition		
		0 < t < 6months	6 < t < 12 months	t > 12 months
K = 3	Mean Dice score (total RORA)	0.83	0.83	**0.88**
	Mean Dice score (RORA growth)	**0.44**	**0.47**	0.63
	Mean square root area error [mm]	0.180	**0.198**	0.205
K = 5	Mean Dice score (total RORA)	**0.84**	**0.87**	**0.88**
	Mean Dice score (RORA growth)	**0.44**	**0.47**	**0.64**
	Mean square root area error [mm]	**0.159**	0.204	**0.189**
K = 7	Mean Dice score (total RORA)	0.82	0.807	0.87
	Mean Dice score (RORA growth)	0.41	0.43	0.61
	Mean square root area error [mm]	0.210	0.285	0.262

Table 5. Ablation study, impact of number of output channels/Taylor series terms in testing scenario B, comparison to manual ground-truth

		Input: baseline acquisition					
		t=0 (baseline)	0<t<1 year	1<t<2 years	2<t<3 years	3<t<4 years	t > 4 years
Model pretrained on Imagenet	Mean Dice score (total RORA)	**0.85**	**0.78**	**0.80**	**0.73**	**0.78**	**0.80**
	Mean Dice score (RORA growth)	-	**0.46**	**0.57**	**0.59**	**0.65**	**0.72**
	Mean square root area error [mm]	**0.126**	**0.188**	**0.219**	**0.309**	**0.263**	**0.327**
Random initialization	Mean Dice score (total RORA)	0.82	**0.78**	0.75	0.68	0.71	0.70
	Mean Dice score (RORA growth)	-	0.44	0.49	0.53	0.54	0.60
	Mean square root area error [mm]	0.186	0.270	0.290	0.250	0.301	0.616

Table 6. Ablation study, impact of using network pretrained on ImageNet vs random initialization in testing scenario A, comparison to manual ground-truth

		Input: previous visit acquisition		
		0 < t < 6months	6 < t < 12 months	t > 12 months
Model pretrained on Imagenet	Mean Dice score (total RORA)	**0.84**	**0.87**	**0.88**
	Mean Dice score (RORA growth)	**0.44**	**0.47**	**0.64**
	Mean square root area error [mm]	**0.159**	**0.204**	**0.189**
Random initialization	Mean Dice score (total RORA)	0.81	0.83	0.85
	Mean Dice score (RORA growth)	0.41	0.46	0.59
	Mean square root area error [mm]	0.211	0.229	0.239

Table 7. Ablation study, impact of using network pretrained on ImageNet vs random initialization in testing scenario B, comparison to manual ground-truth

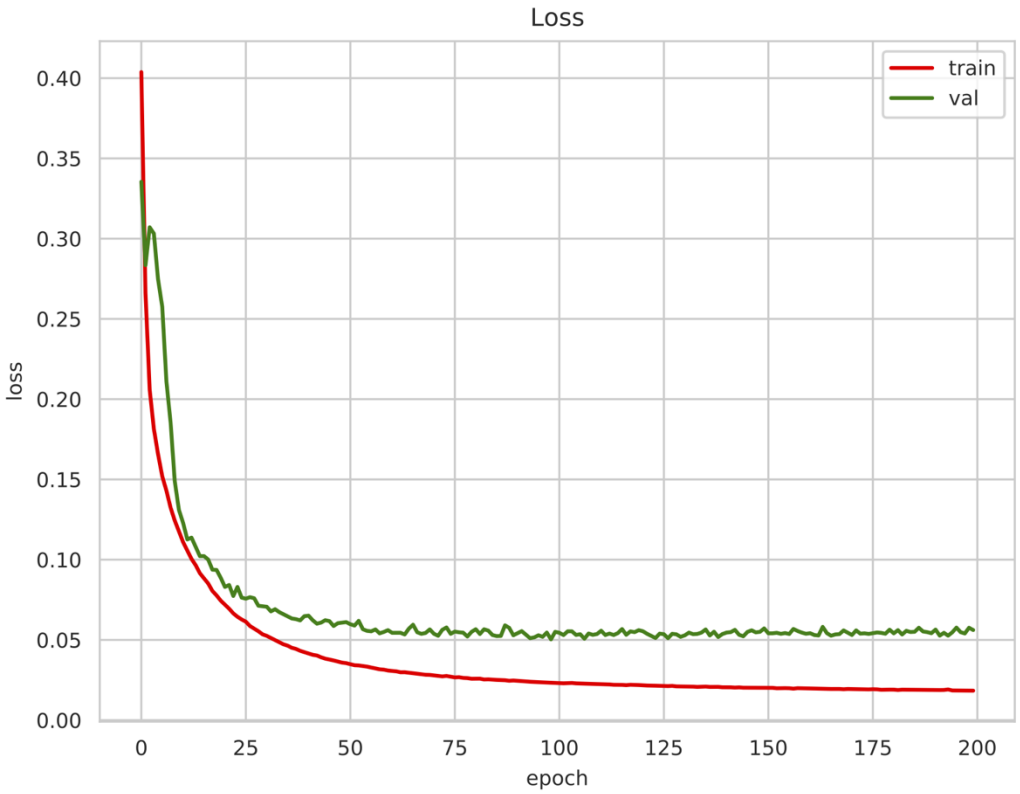

Figure 1. Learning curves.