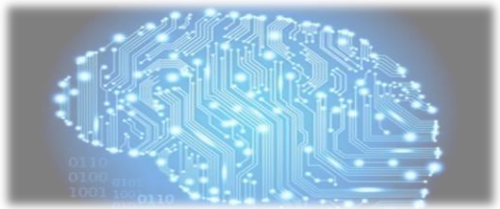
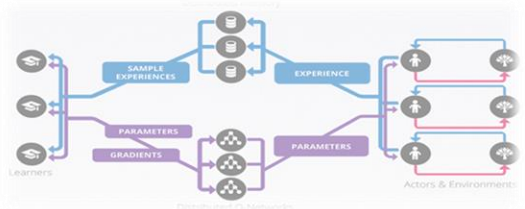

제 10회
담낭 용종 연구 보고

2021.04.20

실험 세팅

➢ **데이터 구성**
- 177명의 환자 데이터 (서울대 전체 데이터)
- Neoplastic : 100명, Non-neoplastic : 77명

➢ **Train & Test Set**
- 2,888장의 데이터셋
- Train Set : 141명(2256장)
- Test Set : 36명(632장)

➢ **Input Image**
- Outline, Inline, Polyp, 담낭벽+Polyp 이미지

➢ **모델 구성**
- 갑상선에서 사용한 모델을 담낭 용종 연구에 맞게 조정한 모델
- 데이터 불균형 문제를 해소하기 위한 Focal loss function 적용

➢ **30번 반복 실험**

Vote Method Classification Performance Table

Table . Metrics with 95% confidence interval of five Images (▼/△ indicates that the corresponding method is significantly worse/better than Top-3 vote method based on paired t-test at 5% significance level).

Vote Method	Metrics	AUC Mean	95% CI		p-value
			Lower	Upper	
Top-3	**AUC**	**0.925**	**0.909**	**0.940**	
	Accuracy	**0.844**	**0.821**	**0.867**	
	Sensitivity	**0.817**	**0.781**	**0.853**	
	Specificity	0.877	0.830	0.924	
Top-5	**AUC**	0.924	0.909	0.939	0.959
	Accuracy	0.836	0.816	0.856	0.672
	Sensitivity	0.797	0.755	0.839	0.565
	Specificity	0.885	0.843	0.927	0.836
Top-10	**AUC**	0.923	0.908	0.938	0.900
	Accuracy	0.833	0.812	0.854	0.573
	Sensitivity	0.770	0.723	0.817	0.241
	Specificity	0.913	0.876	0.950	0.356

AUC, area under the curve; CI, confidence interval; NN, neural network. *: p-value < 0.01, **: p-value < 0.001

Vote Method Classification Performance Table

Table . Metrics with 95% confidence interval of five Images (▼/△ indicates that the corresponding method is significantly worse/better than Top-3 vote method based on paired t-test at 5% significance level).

Vote Method	Metrics	AUC Mean	95% CI		p-value
			Lower	Upper	
Top-3	**AUC**	**0.925**	**0.909**	**0.940**	
	Accuracy	**0.844**	**0.821**	**0.867**	
	Sensitivity	**0.817**	**0.781**	**0.853**	
	Specificity	0.877	0.830	0.924	
Soft	**AUC**	0.919	0.904	0.934	0.672
	Accuracy	0.825	0.802	0.848	0.368
	Sensitivity	0.733	0.683	0.783	0.077
	Specificity	**0.940**	**0.912**	**0.968**	0.116

AUC, area under the curve; CI, confidence interval; NN, neural network. *: p-value < 0.01, **: p-value < 0.001