A

Input → Convolution → Max pooling → Convolution ... Convolution → Max pooling → FC

B

Normal

Dry AMD

Active Wet

Inactive Wet

C

Supplementary Figure 2

A

Acc

98.0
96.0 — **VGG16**
94.0 — **ResNet50**
92.0 — InceptionV3
90.0
88.0
86.0
84.0

0.00 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 Epoch

B

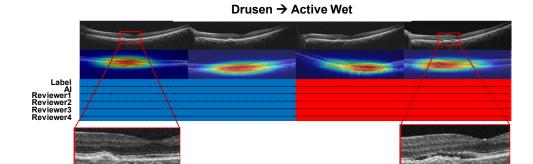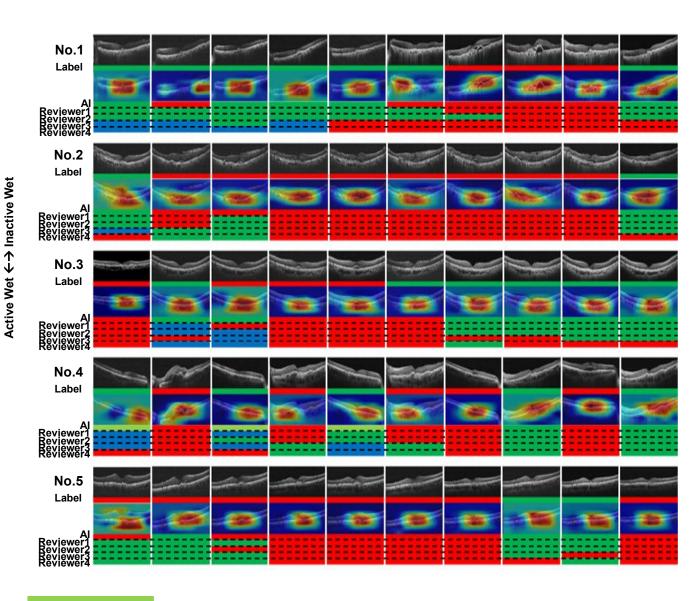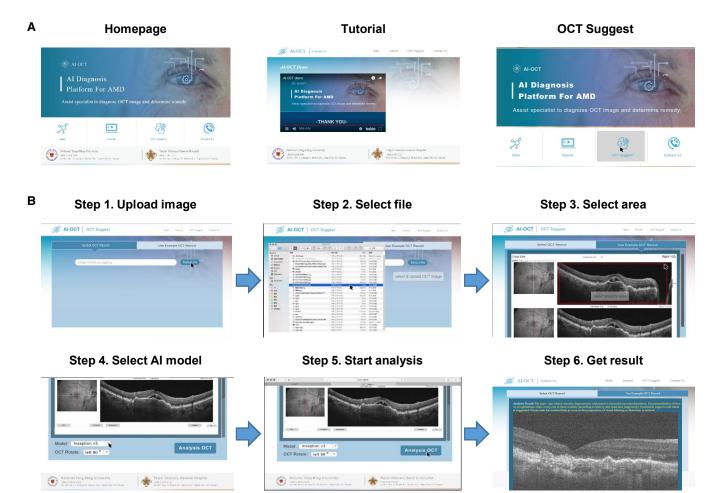| Enroll Type	All 4 types
Architecture	VGG16/InceptionV3/ResNet50
Optimizer	Adam
Learning Rate	1e-4
Batch size	128
Total number of epochs run during training	100
Epochs with the minimal value of loss (best model)	91/88/65
Accuracy of validation of the best model	99.98%/100%/99.74%
Accuracy of verification with independent dataset	91.4%/92.67%/90.73%

A

B

Normal → Drusen

Drusen → Active Wet

Normal

Dry AMD

Active Wet

Inactive Wet

Supplementary Figure 5

Website: https://www.ym.edu.tw/~AI-OCT/

A

Homepage	Tutorial	OCT Suggest

B

Step 1. Upload image	Step 2. Select file	Step 3. Select area

Step 4. Select AI model	Step 5. Start analysis	Step 6. Get result

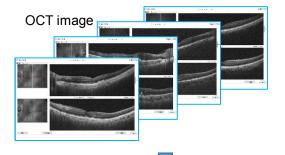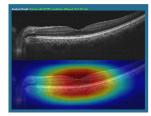**Supplementary Figure 7**

OCT image

AI-based Decision-Making Service

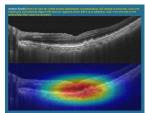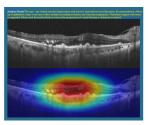https://www.ym.edu.tw/~AI-OCT/

No age-related macular degeneration. Recommendation: self-exam of monocular vision with Amsler grid is suggested. Please seek medical help when vision is decreased.
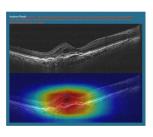
Drusen (dry type age-related macular degeneration). Recommendation: self-exam of monocular vision with Amsler grid, and nutritional support with lutein-rich diet are suggested. Please follow up at ophthalmic clinic every year and seek medical help when vision is decreased.

Wet type age-related macular degeneration with inactive choroidal neovascularization. Recommendation: follow-up at ophthalmic clinic every one to three months (according to history and clinician's judgement). Nutritional support with lutein-rich diet is suggested. Please seek medical help as soon as the progression of visual blurring or distortion is noticed.

Wet type age-related macular degeneration with active choroidal neovascularization. Recommendation: immediate ophthalmic medical checkup and treatment are suggested. Treatment choices include intravitreal injection, photodynamic therapy, or surgery.

Supplementary Table 1

	VGG16	InceptionV3	ResNet50
Accuracy	90.47%	90.39%	90.24%
Sensitivity (normal)	99.17%	99.28%	99.07%
Sensitivity (dry AMD)	81.30%	80.37%	78.41%
Sensitivity (inactive wet AMD)	96.38%	95.56%	94.32%
Sensitivity (active wet AMD)	85.02%	86.36%	89.15%
Specificity (normal)	99.79%	99.97%	99.45%
Specificity (dry AMD)	99.35%	99.66%	99.31%
Specificity (inactive wet AMD)	89.08%	89.08%	90.43%
Specificity (active wet AMD)	99.07%	98.28%	97.80%