

**Table S1** Clusters of the top 120 keywords in deep learning applied to ophthalmology

Cluster	Keywords	Occurrences	
1	Deep learning	1,530	
	Convolutional neural network	658	
	Segmentation	561	
		Retinal image	498
		Image	493
		Glaucoma	297
		Diagnosis	222
		Retinal vessel segmentation	190
		Networks	160
		Retinal vessel	153
		Optic disc	138
		Model	102
		U-Net	87
		Features	65
		Medical image	65
		Boundaries	52
		Optic cup	43
		Attention mechanism	42
		Filter	38
		Net	36
		Optic cup segmentation	34
		Extraction	30
		Architecture	29
		Medical image processing	29
		Fundus	28
		Nerve head	28
		Framework	27
		Transformer	27
		Attention	25
		Medical image segmentation	23
		Optic disc segmentation	23
	Feature fusion	22	
	Vision transformer	21	
	Glaucoma screening	20	
2	Diabetic retinopathy	797	
	Artificial intelligence	399	
	Validation	306	
	Eye disease	227	
	Prevalence	204	
	Ophthalmology	189	
	Machine learning	172	
	Algorithm	129	
	Risk-factors	83	
	Prediction	70	
	Risk	65	
	Global prevalence	46	
	Agreement	44	
	Population	43	
	Open-angle glaucoma	42	
	Telemedicine	39	
	Age	38	
	Blindness	37	
	Myopia	36	
	Photography	36	
	Cataract	35	
	Epidemiology	34	
	Accuracy	32	
	Automated diagnosis	27	
	Cornea	27	
	Visual impairment	26	
	Screening	25	
	Performance	24	
	Vision	24	
	Support vector machine	23	
	Keratoconus	22	
Retinopathy of prematurity	22		
Children	21		
3	OCT	567	
	Retinal layers	155	
	Macular degeneration	136	
	AMD	101	
	Progression	100	
	Thickness	94	
	Diabetic macular edema	87	
	OCTA	87	
	Degeneration	68	
	Quantification	66	
	Fluid	57	
	Ranibizumab	49	
	Outcomes	41	
	Management	39	
	Association	36	
	Edema	32	
	Geographic atrophy	32	
	Visual-acuity	31	
	Fluorescein angiography	29	
	Area	24	
	Choroidal neovascularization	24	
	Enhancement	23	
	Artifacts	22	
	Impact	22	
	Morphology	22	
	Sensitivity	22	
	Biomarkers	21	
	Damage	21	
	Visual field	21	
	Subretinal fluid	20	
	4	Classification	474
Retina		196	
Retinal diseases		164	
Automated detection		125	
Transfer learning		123	
Feature extraction		117	
Diabetes		71	
Computer-aided detection		67	
Macular edema		60	
Generative adversarial network		59	
Image analysis		52	
Image processing		51	
Training		47	
Identification		46	
Visualization		37	
Lesions		36	
Semantic segmentation		33	
Task analysis		32	
Microaneurysm		31	
Medical image analysis		29	
Data augmentation		28	
Computer vision	24		
Ensemble learning	21		

OCT, optical coherence tomography; AMD, age-related macular degeneration; OCTA, optical coherence tomography angiography.