







Special Issue Reprint

Imaging in Ophthalmology—Volume I

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Edited by Vito Romano Yalin Zheng Mariantonia Ferrara

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Ophthalmic imaging tools currently play a fundamental role in the clinical assessment, diagnosis, management, and monitoring of a wide variety of conditions, involving both the anterior and posterior segment. The introduction and developments of imaging technologies, including anterior and posterior segment optical coherence tomography (OCT), OCT angiography, retinal photography, specular and confocal microscopy, corneal topography, and ocular ultrasound, has dramatically improved the morphological and functional evaluations of ocular structures. Moreover, multimodal imaging has led to the successful identification of biomarkers and predictors for high-incidence ocular and neurological disorders. Recently, the application of artificial intelligence (AI) and deep learning in ophthalmology has received growing amounts of interest among researches, due to the promising results in terms of the accuracy and sensitivity of the detection of common eye diseases, such as age-related macular degeneration, diabetic retinopathy, and glaucoma, highlighting the potential of these methods to serve as crucial tools in the screening, diagnosis, long-term follow-up, and prediction of disease progression. This Special Issue includes original studies and reviews regarding the principles, clinical and intraoperative applications, updates, and potential future advances of the ophthalmic imaging tools/methods, applications, and potential developments of artificial intelligence and deep learning, in both anterior and posterior segments.





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