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Translational AI and Computational Tools for Ophthalmic Disease

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Message from the Guest Editor

Over the past several years, there have been rapid advancements in machine/deep learning and artificial intelligence (AI). These advancements have had a large impact across many fields of study, including medicine. Given the data-rich nature of modern ophthalmic care, which makes use of not only patient information and clinical tests, but also extensive imaging and functional testing, this field is especially amenable to AI and other computational approaches. However, despite the large body of work applying AI techniques to ophthalmology, relatively little has been translated into clinical settings so far. This Special Issue focuses on the application of AI and other computational tools in building translational tools that address pressing needs in ophthalmic care. Topics of interest include (but are not limited to) work in developing and/or evaluating AI tools to address screening and diagnosis of ophthalmic diseases, predicting disease progression, forecasting the need for interventions, and clinical decision support for disease management. Work across all aspects of ophthalmic care is relevant and the focus should be on translation into clinical settings to improve care.



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