



EDITORIAL

Upcoming Special Issue: “Artificial Intelligence, Data Science and E-health in Vision Research and Clinical Activity”

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Over the past 13 years Journal of Optometry has published a significant amount of scientific and clinical information covered in over 450 manuscripts published with Original Articles and Review Articles representing over 76% of all the documents making the journal rank high in the international databases.^{1,2}

Considering the emerging technological advances applied to visual sciences the Journal will publish a Special Issue to include novel scientific contributions and novel applications of different branches of artificial intelligence, data science and other approaches to digitalization of vision science research and clinical activity.

From basic visual function testing of visual acuity or contrast sensitivity³ to complex screening and diagnostic tools including visual field evaluation technology⁴ is about to change the paradigm of applying screening testing in flexible, portable and self-used platforms. This has the potential of expanding the capability of the population to self-screen their vision, receive warning messages to visit a clinician and potentially promote early diagnosis. This is also an opportunity to obtain massive amounts of data that might improve our understanding of visual science and vision health provision around the World.

Other applications using automatic image recognition are being invaluable in objective fast analysis of large amount of imaging information helping to early diagnose eye disease,

therapeutic planning and follow-up patients, even at remote regions with deficient visual health coverage systems. The possibility to deliver treatments through technology is also a fascinating area of application of new solutions to improve visual performance or prevent worsening of clinical conditions.^{5,6}

All this disruptive trends in the application of computer science methods to vision science brings the hope to reach more patients in need for visual care, reaching them earlier and treating them better.⁷

This Special Issue will be assisted by Lead Guest Editor assisted by a group of Invited Guest Editors. The Call for Papers will be open till end of March 2022 and this Special Issue is intended to be published during the second half of the year.

Manuscripts accepted for this Special issue will be published free of charge for authors. As usual the manuscripts will also continue to be immediately available Open Access to the international audience of the journal.

We want to incentive authors of high quality and impactful work on this field to take advantage of this opportunity to see their research work rapidly exposed to a large audience without on an Open Access regime.

Call for Papers: 15th December, 2021
 Submission Deadline: 30th March, 2022
 Decision Deadline: 30th June, 2022

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References

1. González-Méijome JM, Piñero DP, Villa-Collar C. Journal of Optometry ranks high in Emerging Sources Citation Index (ESCI). *J Optom.* 2021;14(4):297–298.
2. González-Méijome JM. Journal of Optometry bibliometrics. *J Optom.* 2020;13(2):71–73. <https://doi.org/10.1016/j.optom.2020.03.005>.
3. Rodríguez-Vallejo M, Remón L, Monsoriu JA, Furlan WD. Designing a new test for contrast sensitivity function measurement with iPad. *J Optom.* 2015;8(2):101–108.
4. Kitayama K, Young AG, Ochoa 3rd A, Yu F, Wong KY, Coleman AL. The Agreement Between an iPad Visual Field App and Humphrey Frequency Doubling Technology in Visual Field Screening at Health Fairs. *J Glaucoma.* 2021;30(9):846–850.
5. Portela-Camino JA. Advances in Research in Binocular Vision. *J Optom.* 2021;14(3):227–228.
6. Amorim-de-Sousa A, Schilling T, Fernandes P, Seshadri Y, Bahmani H, González-Méijome JM. Blue light blind-spot stimulation upregulates b-wave and pattern ERG activity in myopes. *Sci Rep.* 2021;11(1):9273.
7. Rono H, Bastawrous A, Macleod D, Wanjala E, Gichuhi S, Burton M. Peek Community Eye Health - mHealth system to increase access and efficiency of eye health services in Trans Nzoia County, Kenya: study protocol for a cluster randomised controlled trial. *Trials.* 2019;20(1):502.