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Sir,
Response to 'Comment on The evidence informing the surgeon's selection of intraocular lens on the basis of light transmittance properties'

We thank Professor Hammond for his correspondence, which serves to strengthen our conclusion that there is no evidence base that can justify anyone to advocate for blue-blocking intraocular lenses (IOLs) over ultraviolet (UV)-only blocking IOLs.

Professor Hammond takes issue with our conclusion (that is, 'In terms of photoprotection, there is no Level 2b ([or higher) evidence in support of blue-filtering IOLs *vs* UV-only filtering IOLs.[1]') on the basis that we did not cite select publications, which he has now kindly brought to our attention. Accordingly, we would like to bring the Editor's attention to Table 1, which includes all of the publications alluded to by Professor Hammond, and which clearly illustrates that there remains no Level 2b evidence (or higher) in favour of blue-blocking IOLs over UV-only blocking IOLs.

Furthermore, not a single publication (ever) that has advocated for blue-blocking IOLs has measured MP, another prereceptoral filter that absorbs blue light and has profound implications for vision (as demonstrated by Professor Hammond's own work[2–4]) and for macular health.[5]

Accordingly, and in keeping with the findings of Professor Hammond and others, a study designed to comment upon the impact of blue-blocking IOLs *vs* UV-only blue-blocking IOLs that does not measure and account for MP not only fails to address the research question but even precludes the possibility of addressing the research question.

In conclusion, we thank Professor Hammond for the interest he has shown in our work, an interest, which copperfastens our contention that there is no evidence-based justification for implanting blue-blocking IOLs over UV-only blocking IOLs at the time of cataract surgery.

Conflict of interest

JMN and SB do consultancy work for nutraceutical companies, in a personal capacity, and as directors of Nutrasight Consultancy Limited. The remaining authors declare no conflict of interest.

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Table 1 Evidence level

Principal author	*Level of evidence*[1]	*Subjects (n)*	*Study eyes*	*Study design*	*Main outcome Measure(s)*	*Financial support*	*Advocates blue-light-filtering IOLs*	*MP measured*	*Critique/Reason for non-inclusion in our publication*
Hammond[6]	4	16	n/a	D	Characterization of compensation for differing MP densities	National Science Foundation Grant	n/a	Yes	No cataract surgery was performed for the purpose of the study, thereby precluding meaningful comment on implantation of blue-light-filtering IOLs *vs* UV-only filtering IOLs
Hammond[7]	4	80	n/a	D	Relationship between MPOD and gap detection and hyperacuity	National Science Foundation Grant	n/a	Yes	No cataract surgery was performed for the purpose of the study, thereby precluding meaningful comment on implantation of blue-light-filtering IOLs *vs* UV-only filtering IOLs
Hammond *et al*[8]	4	58	58	C	Photostress recovery and visual acuity under veiling glare conditions	Alcon Lab. Inc.	Yes	No	No cataract surgery was performed for the purpose of the study, and only cross-sectional analysis of postoperatively assessed outcome measures was reported (thereby precluding meaningful comment on implantation of blue-light-filtering IOLs *vs* UV-only filtering IOLs)
Hammond *et al*[9]	4	52	104	A	Glare disability	Alcon Research Ltd.	Yes	No	No cataract surgery was performed for the purpose of the study, and only cross-sectional analysis of postoperatively assessed outcome measures was reported (thereby precluding meaningful comment on implantation of blue-light-filtering IOLs *vs* UV-only filtering IOLs)
Gray *et al*[10]	4	36	36	C	Safety margin (TTC and TTCT) assessed in a driving simulator	Alcon Lab. Inc, and Dr. Suryakumar (an author) is an employee of Alcon Laboratories Inc.	Yes	No	No cataract surgery was performed for the purpose of the study, and only cross-sectional analysis of postoperatively assessed outcome measures was reported (thereby precluding meaningful comment on implantation of blue-light-filtering IOLs *vs* UV-only filtering IOLs). Further, outcome measures inconsistent with our *a priori* criteria for inclusion[1]
Gray *et al*[11]	4	33	33	C	Safety margin (TTC and TTCT) assessed in a driving simulator	Alcon Lab. Inc., and Dr Houtman (an author) is an employee of Alcon Laboratories Inc.	Yes	No	No cataract surgery was performed for the purpose of the study, and only cross-sectional analysis of postoperatively assessed outcome measures was reported (thereby precluding meaningful comment on implantation of blue-light-filtering IOLs *vs* UV-only filtering IOLs). Further, outcome measures inconsistent with our *a priori* criteria for inclusion[1]
Jackson *et al*[12]	4	94	n/a	D	Scotopic and photopic retinal sensitivity in relation to age	Not mentioned	n/a	No	No cataract surgery was performed for the purpose of the study, thereby precluding meaningful comment on implantation of blue-light-filtering IOLs *vs* UV-only filtering IOLs

Table 1. (Continued)

Principal author	*Level of evidence*[1]	*Subjects (n)*	*Study eyes*	*Study design*	*Main outcome Measure(s)*	*Financial support*	*Advocates blue-light-filtering IOLs*	*MP measured*	*Critique/Reason for non-inclusion in our publication*
Nolan *et al*[13]	2b	42	84	B	MPOD and serum concentration of lutein and zeaxanthin	Alcon Laboratories Inc.	No	Yes	The primary outcome measure was change in macular pigment following cataract surgery, and did not include our *a priori* criteria for inclusion (vision, sleep disturbance or phototoxicity)[1]
Feng *et al*[14]	4	152	Not specified	Not specified	Sleep quality	National Natural Science Foundation of China	No	No	Published after submission of our paper[1]

Abbreviations: MP, macular pigment; MPOD, macular pigment optical density TTC, estimated time to collision, by using a driving simulator; TTCT, estimated time to completed the turn, by using a driving simulator.
Study design: surgery type A: both eyes operated upon for the purpose of the study, where one eye was implanted with a UV-only filtering IOL and fellow eye implanted with a blue-light-filtering IOL; B: both eyes operated upon for the purpose of the study, where at least one eye was implanted with either a blue-light filtering IOL or a UV-only filtering IOL; C: only one of two eyes operated upon for the purpose of the study, where the fellow eye may has been either pseudophakic or cataractous; D: no surgery performed for the purpose of the study.

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