

A Catalog of Patent Applications Published in 2022 Related to Ophthalmology and Vision Science

As highlighted in a recent editorial,¹ *TVST* is concerned with both translational vision science and the technology that makes that science and its translation possible. We hope that many relevant technological developments will be reported in *TVST* articles, but we recognize that many may appear first, or exclusively, as patents. We therefore believe that annual January editorials featuring a catalog of patent applications relevant to vision science published in the previous year will be of interest and utility to our readership.

Patents are an indicator of the pace of innovation, and they can be subjected to a wide variety of analyses. Such analyses are valuable to researchers because patents can quantify otherwise difficult-to-measure phenomena like technological collaboration, the evolution of the technological space, geographical and company-wise predispositions, and more.

Professional access to AI-based tools was used to provide a patent landscape analysis involving international patent applications published in 2022 by the

World International Patent Office (WIPO) as related to the field of ophthalmology based on a query built on patent classification items and keywords collection. WIPO publications are published 18 months after the patent application establishing the first filing date and are used as a gauge to smooth out specific patterns that may arise on each national market (domestic patent grants, re-publications, etc.).

The results of the search are shown in the Supplementary Excel file, which provides titles, abstracts and thumbnail images for each of the identified 1562 patents, as well as IPC class and group descriptions and patent application and publication dates. Readers are invited to use the sorting, filtering, and search functionality in Excel to find patents of interest to them. We also encourage readers to extract information from the spreadsheet to be presented in other forms to show interesting trends. As examples, we present two figures derived from the spreadsheet. [Figure 1](#) shows the number of ophthalmology related applications in

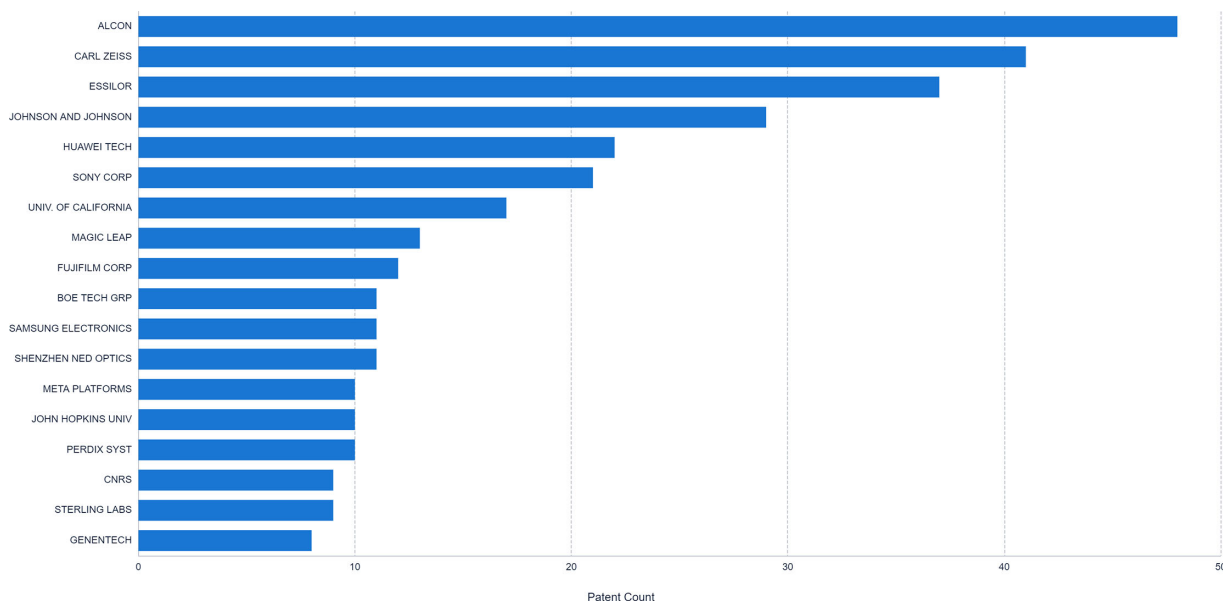


Figure 1. Number of ophthalmology-related patent applications in 2022 by applicant for the top 18 applicants.



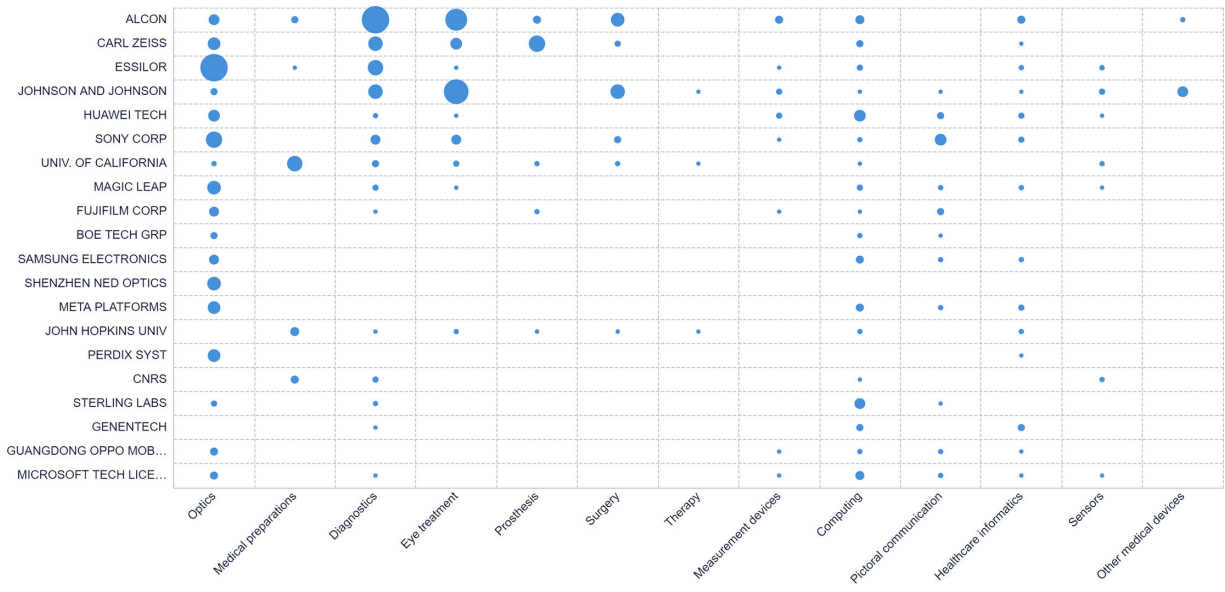


Figure 2. Distribution of 2022 patent applications across technical fields.

2022 from the Excel table by the top 18 applicants, and Figure 2 shows how those applications are distributed across technical fields for those top applicants.

Reference

1. Chuck RS. Continuing progress at translational vision science and technology: Where do we go from here? *Trans Vis Sci Tech.* 2023;12:1.

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