

Prof. Damien Gatinel, MD, PhD

Ophthalmologist & Surgeon–Scientist

Head, Anterior & Refractive Surgery Department

Fondation Rothschild, Paris

Prof. Damien Gatinel, MD, PhD, is an ophthalmologist and surgeon–scientist who heads the Anterior & Refractive Surgery Department at Fondation Rothschild in Paris and serves as Associate Professor of Ophthalmology at Abulcassis International University of Health Sciences in Rabat, Morocco.

Research & Clinical Focus

His clinical and research work focuses on:

- Intraocular lens (IOL) optical design and power calculation (co-conceptor of the PEARL–DGS thick-lens formula)
- Mathematical modeling of laser refractive surgery
- AI applications in anterior segment imaging
- Detection and analytics of subclinical keratoconus

He holds a PhD in applied mathematics and has introduced new formalisms for ocular wavefront analysis and optical aberrations.

Innovations & Patents

He is inventor or co-inventor on several patents, including:

- The first diffractive **trifocal IOL** (FineVision, U.S. FDA approval in 2025)
- The **READ** presbyopia laser algorithm (Alcon WaveLight EX500)
- The **SCORE Analyzer** for corneal topography
- A novel **polynomial basis** designed to facilitate clinical interpretation of the human eye wavefront
- A novel method for **wavefront decomposition expressed in vergence**, using orthonormal functions (*patent pending*)

Professional Leadership

Prof. Gatinel serves on:

- Executive Committee of the International Society of Refractive Surgery (ISRS)
- Committees of the ESCRS
- Board of SAFIR (French Refractive and IOL Surgery Society)

- Editorial Board of the *Journal of Refractive Surgery*

Academic Output

He has authored more than **250 peer-reviewed publications** and **five books**.

Honors & Recognition

He has received over 30 international prizes and awards, including:

- **ASCRS Kelman Innovators Award** (2025)
- **AECOS Joseph Colin Prize** (2025)
- **21 Best Paper of Session Awards** at ASCRS Annual Meetings
- **Knight of the Order of the Crown** (Kingdom of Belgium, 2015) — awarded for the design of the first trifocal intraocular lens
- Repeatedly listed in *The Ophthalmologist's Power List* of the 100 most influential people in ophthalmology (2018, 2020, 2022–2025)