David J. Apple, MD Laboratories for Research on Ophthalmic Devices
Salt Lake City, Utah

Storm Eye Institute, Cataract/Refractive Research Center

25 Years, D. Apple IOL Research Center
1980 to 2005

Sir Harold Ridley
AND HIS FIGHT FOR SIGHT
He changed the world so that we may believe we can
The Invention of the IOL
(1935-1951)

1. 1935. Conversations with His Father and Professor.
3. 1940-1948. A Preclinical Study on an Invention that had not yet been invented.
5. 1948-49. Mobilization: Rayner, ICI and others.
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1. Adlertag

From Reichsmarschall Göring to all Units of Air Fleets 2, 3 and 5. Operation Eagle. Within a short period you will wipe the British Air Force from the Sky. Heil Hitler!
Eagle Day – and After
13 - 14 August

...
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Duke-Elder
7 generations of Cataract-IOL Surgery
The Introduction of Quality IOLs and Complex "Specialized" implantable Devices Usually Preceded the Quality of the Surgery.

Early Ridley IOL
Early AC IOL
Early Phakic IOLs
Early Clear Lens Extraction
Piggybacks
"Modern "Specialized" IOLs

1949
For the first time the lens capsular bag became accessible for visual and therapeutic implantations

1) Classic IOLs
2) Refractive/Vision enhancing devices (Super Vision, phakic IOLs
   a) Toric Lenses
   b) Multifocal IOLs
   c) Accommodative IOLs
   d) IOLs to Correct wavefront aberrations (High order Zernike polynomials)
3) Low Vision IOLs, e.g., Galalien telescopic devices
4) Pediatric IOLs
5) Drug Delivery Systems
   a) Anti PCO-IOLs
   b) General intraocular therapy
6) "Intracocular" Plastic surgery (artificial colored implants)
7) Implant site for various retinal stimulators ("artificial eyes")