Demonstration of Lens Proteins and Serum Proteins in the Intraocular Tissues of the Chicken by Means of Immunofluorescence

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Corresponding proteins were localized in transverse sections through the eye, by means of fluorescence and using polyvalent and specific anti-sera. The following antisera were prepared and applied in the immunofluorescence: (1) an antiserum against antigens from iris extract, which contains both lens crystallins and serum proteins; (2) an antiserum against two antigens isolated from iris, namely iris α -crystallin and iris albumin, and (3) an antiserum against chicken serum.

The following antigens were demonstrated by application of the immunofluorescence technique: (1) albumin in iris, in corneal endothelium, in Bowman's membrane of the cornea, and in the retina; (2) serum proteins in the corneal stroma, in iris and retina; (3) serum proteins corresponding with those of iris and serum in the lens capsule, and (4) crystal-lin, corresponding to α -crystallin from iris, in the lens.

No serum proteins were demonstrated in the corneal epithelium, lens proteins were absent in the lens capsule, and the lens did not contain serum proteins. Antiserum against iris contains antibodies against lens crystallins as well as against certain serum proteins. Conversely, on using this antiserum lens crystallins were demonstrated in iris by positive immunofluorescence of the lens.