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Nota di contenuto	1. Expansion of Asian Eye Genetics Consortium (AEGC) to Global Eye Genetics Consortium (GEGC), Introduction of a global Phenotype-Genotype Database "GenEye" and Launch of New Training Programs at National Eye Institute (NEI) -- 2. Global Women's Eye Health: a Genetic Epidemiologic perspective -- 3. Establishing the Chinese Arm of GEGC -- 4. Human material for research: Eye banking, biobanking and ethical access -- 5. Current Understanding of Polypoidal Choroidal Vasculopathy -- 6. Genetics of Age-related macular degeneration (AMD) in Asia -- 7. The contribution of rare allele and Junk Genome in AMD pathogenesis -- 8. Differential genotypes in age-related macular degeneration and polypoidal choroidal vasculopathy: a updated meta-analysis -- 9. Genetic Epidemiology of Quantitative Traits of Primary Open Angle Glaucoma -- 10. Association studies on retina diseases in Chinese population -- 11. Congenital stationary night blindness (CSNB) – an inherited retinal disorder where clear correlations can be made -- 12. Genome analysis for inherited retinal disease: the state of the art -- 13. Generation and analysis of induced photoreceptor-like cells from fibroblasts of patients with retinitis pigmentosa -- 14. Genotype-phenotype of RPE65 mutations: A reference guide for gene testing and its clinical application -- 15. Genetic variants and impact in PDE6B rod-cone dystrophy -- 16. The retinitis pigmentosa genes -- 17. Primary Congenital Glaucoma Genetics – The Experience in Brazil -- 18.

Glaucoma genetics in Pakistan -- 19. Contributions of Promoter Variants to Complex Eye Diseases -- 20. Vascular Basement Membrane Thickening – Basis of disease pathology in diabetic retinopathy -- 21. Molecular Genetics and Clinical aspects of Macular Corneal Dystrophy -- 22. Congenital and Inherited Cataracts -- 23. Higher order aberrations: differences among populations from various demographics -- 24. Genetics Of Microphthalmia: Global And Indian Perspectives -- 25. Regional Differences in Prevalence of Myopia: Genetic or Environmental Effects? -- 26. Consortium for Refractive Error and Myopia (CREAM): Vision, Mission and Accomplishments -- 27. Oncologic properties of retinoblastoma genes -- 28. Oncologic implications of genetic and epigenetic basis of pterygium -- 29. The need for alternative therapies in eye disorders -- 30. Gene Therapy and Retinal Disease -- 31. The use of human pluripotent stem cells (hPSCs) and CRISPR-mediated gene editing in retinal diseases.

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#### Sommario/riassunto

This third volume, with three supporting editors, broadens its focus on genetic eye research from the Asian to the global scale. New efforts and a new awareness have sparked important discussions on genetic eye research, and new plans are being implemented to identify the genes responsible for numerous eye diseases. The book introduces the latest findings on genetics in eye diseases, gene therapy, and genome-wide association analysis, and the efforts of the Global Eye Genetic Consortium (GEGC). The book's editors have been instrumental in developing strategies for discovering the new genes involved in many eye diseases. All chapters were written by leading researchers working on eye genetics from the fields of Human Genetics, Ophthalmology, Molecular Biology, Biochemistry, Sensory Sciences, and Clinical Research. Advances in Vision Research, Volume III is a major resource for all researchers, clinicians, clinical researchers, and allied eye health professionals with an interest in eye diseases around the globe.

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