

INFANTS BORN WITH EYE BLINDNESS * KEY TO VISUAL CYCLE GENE DISCOVERED * A BREAKTHROUGH

Infants born with the blinding disease **Leber congenital amaurosis** are found to be **missing the gene RPE65**. The gene was known, but its importance was realized as scientists demonstrated that the gene is also the **retinoid isomerase enzyme** key to the visual cycle.

For 20 years, scientists have been looking for **retinoid isomerase enzyme** and the function of the **RPE65** protein. The researchers from the University of California in Los Angeles (UCLA) hope the findings could lead to a **cure for some forms of congenital blindness through gene therapy**.

"We were amazed when we discovered the function for RPE65, and that RPE65 is the retinoid isomerase. It is a protein that all of us had known about for years," said Dr Gabriel Travis, professor of ophthalmology and biological chemistry at UCLA. "It's like searching the world for a treasure, then discovering it in your own back yard."

Leber congenital amaurosis is an inherited disease that is believed to cause up to **20%** of all cases of childhood blindness. It is caused by mutations in several different genes including RPE65. An important characteristic of this disease is that the light sensitive rod and cone cells remain intact in the retinas of Leber patients for a long time.

The newly identified isomerase enzyme plays a crucial role in the **regeneration of rhodopsin visual pigment in the retina after light exposure**. Rhodopsin contains a light absorbing molecule called 11 cis retinaldehyde, related to vitamin A, which is converted upon light absorption to all trans retinaldehyde in a process called photo bleaching. This conversion is the first step in visual perception.

"This suggests that **replacement of RPE65 by gene therapy** should correct the blindness in these children, as was observed in mice and dogs with RPE65 mutations," Dr Travis said. "This is a major breakthrough in understanding the visual cycle. It has ramifications for several inherited blinding diseases caused by mutations in visual cycle genes."

PROHOST RESEARCH
P.O.BOX 640 429
Oakland Gardens, Ny 11364
Telephone : 516 678 1335
Fax 718 423 2731
E-mail prohost@aol.com.

FORWARD-LOOKING STATEMENT Prohost is independent publication providing information on biotech companies. Prohost does not accept compensation from companies that are featured or profiled. It is strongly recommended that any purchase or sale decisions to any of the featured companies be discussed with a financial advisor or broker prior to completing any such purchase or sale decision. All statements or expressions are the opinion of Prohost and are not meant to be a solicitation or recommendation to buy, sell, or hold securities. Investing in embryonic companies, micro-cap and growth securities is highly speculative and carries a high degree of risk. It is possible that an investor can lose all of his/her investment in this type of companies that are profiled. The information that Prohost relies on is either through the profiled company, news services, research reports, interviews, or other outside sources that Prohost believes are reliable. Prohost makes no representations, warranties or guarantees as to the accuracy or completeness of the disclosure of the profiled companies and accepts no responsibilities for inaccuracies or misleading content in any material supplied by those clients. There can be no assurance that future events relating to the profiled company will occur as anticipated. The information contained herein is provided as an information service only. Past performance of featured companies does not guarantee the future success of any currently featured or profiled company. We encourage our readers to invest carefully and read the investor information provided by the Securities and Exchange Commission ("SEC") and/or the National Association of Securities Dealers ("NASD"). We also strongly recommend that you read the SEC advisory to investors concerning Internet Stock Fraud, which can be found at: <http://www.sec.gov/consumer/cyberfr.htm>