Chicago Alliance to Fund Retinal Research

SIGHT QUEST NEWSLETTER

(SPRING 2016)

A publication of SEARCH FOR VISION

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Dr. Michael Grassi's Talk

Thanks to Nina Deitch for the photographs.

A Taste for Research Lunch

The advantages of being a member of a group with a singular purpose are many. Search for Vision's mission is the treatment and cures of retinal eye diseases. Among the advantages are comradery and knowledge, these were very much in evidence on Saturday, April 16th at the Wildwood Tavern.

After a delicious lunch SFV members were introduced to Technology based devices available from Lakewood Technology that improve the access to printed material utilizing illumination, magnification, narration and audio memory. Next Mobile Tel demonstrated and explained that smart phones do more than communications, among others were GPS navigation and text reading.

The main speaker was Dr. Michael Grassi who gave us a comprehensive research update highlighting 5 major points, they are: Gene replacement therapy, Trophic factors, Stem cells, Retina Chip, Genetic Testing. He covered the current state of development and their advantages and disadvantages. At this time all are experimental therapies but are making advances.

Retinal degenerative diseases are extremely complicated considering the many different types there are but they are revealing their secrets. We are the first generation to witness any advancements in combating these maladies. We know their causes, it is genetic not the information it originally was thought to be. There is hard work and advances made all the time. Our job is to encourage and fund this work.

For making this luncheon meeting possible, Search for Vision is grateful to:

The management and staff of Wildwood Tavern.

Priyam Chibber and Woodlake Technologies.

Andrew Rasch and Mobile Tel and

Dr. Michael Grassi of Grassi Retina MD SC and Assistant Professor of Ophthalmology; Director, Retinal Chemical Genomics Laboratory, University of Illinois College of Medicine Department of Ophthalmology and Visual Sciences.

And especially Renee Grais and Dr. I. Martin Grais for creating and developing this event.
Parent Petroleum Golf Classic

SEARCH FOR VISION and PARENT PETROLEUM Presents A $5,000 Raffle

As part of the Parent Petroleum Golf Classic, a $5,000 raffle will be held.

Tickets cost $20.00 PER TICKET OR (6) FOR $100

Drawing to be held Thursday, August 25, 2016 at the PARENT PETROLEUM 19TH ANNUAL GOLF CLASSIC at St. Andrews Country Club in West Chicago IL 60185

FIRST PRIZE $2,500

SECOND PRIZE $1,000

THIRD PRIZE $550

FOURTH PRIZE & FIFTH PRIZE $250

SIXTH, SEVENTH & EIGHTH PRIZES $150

(WINNER NEED NOT BE PRESENT)

Tickets will soon be available. To order make check payable to Search for Vision and mail to:

Search for Vision

1011 South Waiola Avenue.

La Grange, Illinois 60525

Or contact: Ann Rasch arasch1761@aol.com or 708 354 4620.

All proceeds go directly to retinal eye research.

SILENT AUCTION
Included with the Parent Petroleum Golf Classic on August 25, 2016 will be a silent auction. We would like to request our members and friends to donate items that can be used in the auction.

Prizes of value will be accepted such as: gift certificates, dining certificates, Sports Memorabilia, sporting event tickets, theater and concert tickets, electronics, power tools, jewelry, pieces of art, etc. Something you yourself would bid on.

Good sources for auction items are: department stores, big box stores, home stores, local stores, theaters (film and live), jewelry stores, restaurants', etc.

As an incentive, any item with a value of more than $50.00 the donator will receive a free raffle ticket.

For more information or shipping instruction contact:

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708-354-4620

Email: arasch1761@aol.com

Or:

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708-652-4614

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FIRST HUMAN CLINICAL TRIAL TO TREAT RP BEGINS

ReNeuron, in partnership with Boston Eye and Ear, has announced that the first patient has been treated in a phase 1 stem cell trial for Retinitis Pigmentosa [RP].

This new trial uses human retinal progenitor cells [hRPC] and pre -clinical trial tests have shown that the cells not only protect the retina from further degeneration but also integrate into the retina and produce new photoreceptor cells. 65 different genetic mistakes have already been linked to RP and this stem cell treatment could potentially treat any of these genetic variants while gene replacement therapy only treats one specific gene variant.

The Phase I/II clinical trial is only the first step in a long process and will evaluate the safety, tolerability and preliminary efficacy of ReNeuron's hRPC cell therapy. 15 Patients with advanced RP will receive the treatment.

Internationally acclaimed researcher Eric Pierce, MD, PhD, Director of the Ocular Genomics Institute and Berman Gund Laboratory for Study of Retinal Degenerations at Massachusetts Eye and Ear and Principal Investigator for the clinical trial, commented: "We are delighted to have treated the first patient in this important Phase I/II clinical trial. The human Retinal Progenitor Cells being tested in the study are promising since they can make photoreceptors. The implanted cells may not only prevent degeneration of patients' vision but may possibly restore some vision by replacing degenerated photoreceptor cells. We look forward to reporting future progress with this study in the months ahead."

Stem Cells Help Restore Vision

University of Montreal

Age-related macular degeneration could be treated by transplanting photoreceptors produced by the directed differentiation of stem cells, thanks to findings published by Professor Gilbert Bernier of the University of Montreal and its affiliated Maisonneuve-Rosemont Hospital. Age-related macular degeneration (AMRD) could be treated by transplanting photoreceptors produced by the directed differentiation of stem cells, thanks to findings published today by Professor Gilbert Bernier of the University of Montreal and its affiliated Maisonneuve-Rosemont Hospital. ARMD is a common eye problem caused by the loss of cones. Bernier's team has developed a highly effective in vitro technique for producing light sensitive retina cells from human embryonic stem cells. "Our method has the capacity to differentiate 80 percent of the stem cells into pure cones," explained Professor Gilbert. "Within 45 days, the cones that we allowed to grow towards confluence spontaneously formed organized retinal tissue that was 150 microns thick. This has never been achieved before."

In order to verify the technique, Bernier injected clusters of retinal cells into the eyes of healthy mice. The transplanted photoreceptors migrated naturally within the retina of their host. "Cone transplant represents a therapeutic solution for retinal pathologies caused by the degeneration of photoreceptor cells," said Bernier. "To date, it has been difficult to obtain great quantities of human cones."

His discovery offers a way to overcome this problem, offering hope that treatments may be developed for currently non-curable degenerative diseases, like Stargardt disease and ARMD. "Researchers have been trying to achieve this kind of trial for years," he said. "Thanks to our simple and effective approach, any laboratory in the world will now be able to create masses of photoreceptors. Even if there's a long way to go before launching clinical trials, this means, in theory, that they will be eventually able to treat countless patients.

ARTIFICIAL RETINA COULD SOMDAY RESTORE VISION [This novel, flexible film that can react to light is a promising step toward an artificial retina. Image credit: American Chemical Society]

This novel, flexible film that can react to light is a promising step toward an artificial retina. Image credit: American Chemical Society. Tthe loss of eyesight, often caused by retinal degeneration, is a life-altering health issue for many people, especially as they age. But a new development toward a prosthetic retina could help counter conditions that result from problems with this crucial part of the eye. Scientists published their research on a new device, which they tested on tissue from laboratory animals, in the ACS journal Nano Letters.

Yael Hanein and colleagues point out that a growing range of medical devices has become available to treat conditions, including visual impairment, that involve sending sensory signals to the brain. Patients with one type of eye disorder called age-related macular degeneration (AMD), for example, could potentially benefit from such a device, they say. AMD usually affects people age 60 or older who have damage to a specific part of the retina, limiting their vision.

Scientists are trying different approaches to develop an implant that can "see" light and send visual signals to a person's brain, countering the effects of AMD and related vision disorders. But many attempts so far use metallic parts, cumbersome wiring or have low resolution.

The researchers, an interdisciplinary team from Tel Aviv University, the Hebrew University of Jerusalem Centers for Nanoscience and Nanotechnology and Newcastle University, wanted to make a more compact device.

The researchers combined semiconductor nanorods and carbon nanotubes to create a wireless, light-sensitive, flexible film that could potentially act in the place of a damaged retina. When they tested it with a chick retina that normally doesn't respond to light, they found that the film absorbed light and, in response, sparked neuronal activity.

In comparison with other technologies, the researchers conclude theirs is more durable, flexible and efficient, as well as better able to stimulate neurons.

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NOTICE

Anyone wishing to receive Sight Quest Newsletter can contact Jay or Lorraine Popek at popek@att.net or call 708-652-4614.