

Integrating academic research, clinical research and private practice – a unique opportunity for translational medicine

Nelson R. Sabates, M.D.

Chairman, Department of Ophthalmology

University of Missouri - Kansas City, School of Medicine

President, Vision Research Foundation of Kansas City

President and Chief Executive Officer of Sabates Eye Centers, P.C.



“Vision for the Future”

- The Challenge

It is estimated that over 9 million people over the age of 40 have early signs of **Age-related Macular Degeneration** -the most common cause of decreased vision in people over 65.

For almost 90% of these patients no effective treatment is available.

Diabetic retinopathy also affects millions of individuals and the numbers are rising rapidly due to an increase in the incidence of juvenile and type 2 diabetes.

Glaucoma, another thief of sight among otherwise healthy adults, is the most common cause of decreased vision in the African-American population. Effective treatment options for both are not available.

“Vision for the Future”

- The Challenge

In the US over 9 million people over the age of 40 have

Age-related Macular Degeneration or AMD.

No effective treatment is available for 90% of patients.



“Vision for the Future”

- The Challenge

Diabetic retinopathy affects over 4 million individuals. The numbers are rising rapidly due to an increase in the incidence of juvenile and type 2 diabetes.

Effective long-term treatment options are not available.



“Vision for the Future”

- The Challenge

Glaucoma affects over 4 million people in the US – most common cause of vision loss in African-Americans.

Effective long-term treatment options are not available.



“Vision for the Future”

- The Answer

With the formation of the new **Vision Research Center** Kansas City is well on its way to becoming a **national center for eye research** where these ocular diseases and others are being **researched** to develop **new therapy** approaches urgently needed by physicians in the US and worldwide, transferring **basic science** findings seamlessly into **practical use** with patients.

“Vision for the Future”

- The Answer

Objectives of the Vision Research Center:

- direct avenue for basic and translational research
- educational excellence
- ensure patients receive the most advanced medical treatments available

“Vision for the Future”

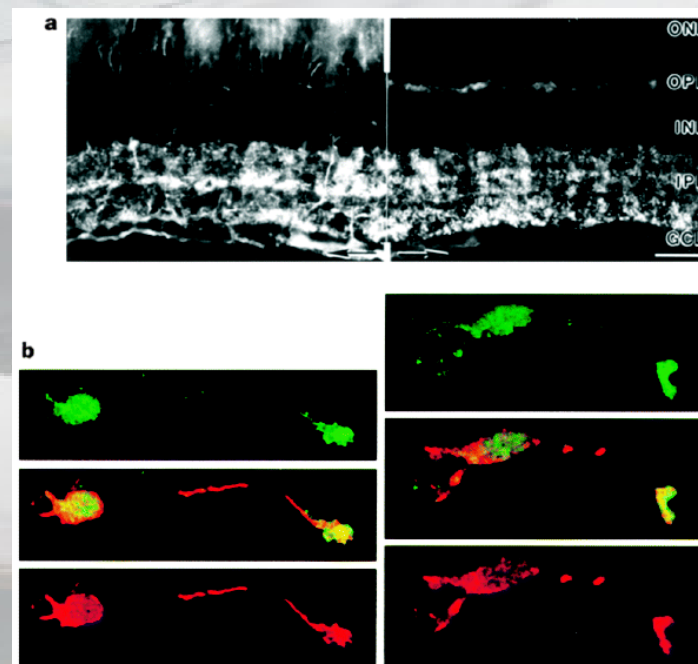
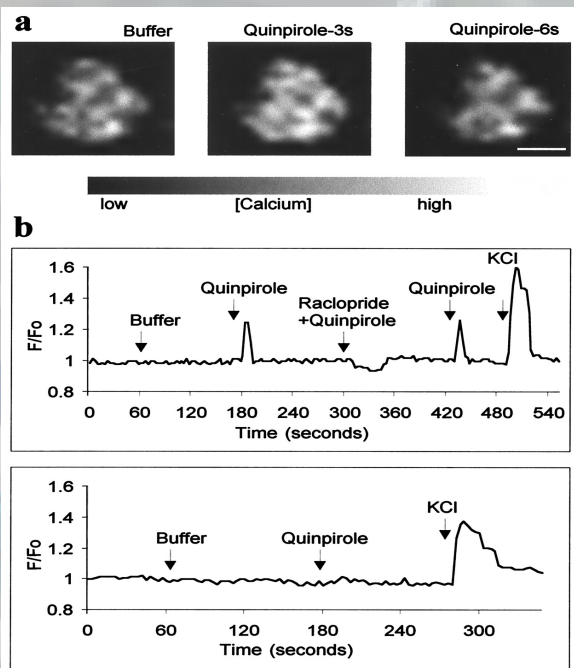
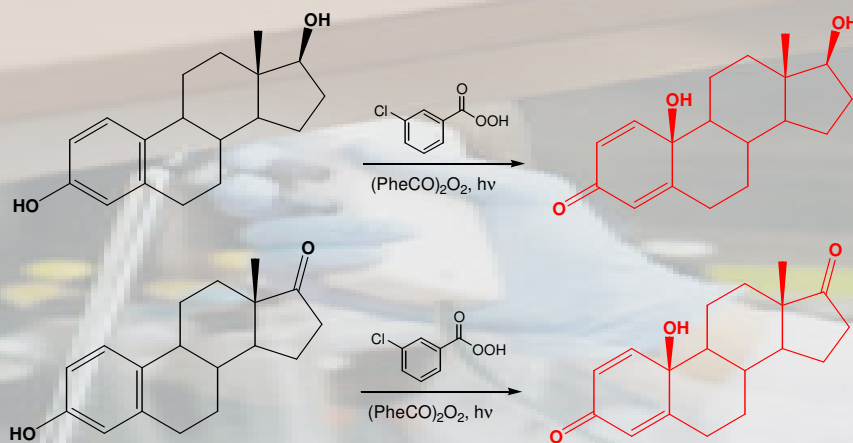
- The Answer

The Vision Research Center:

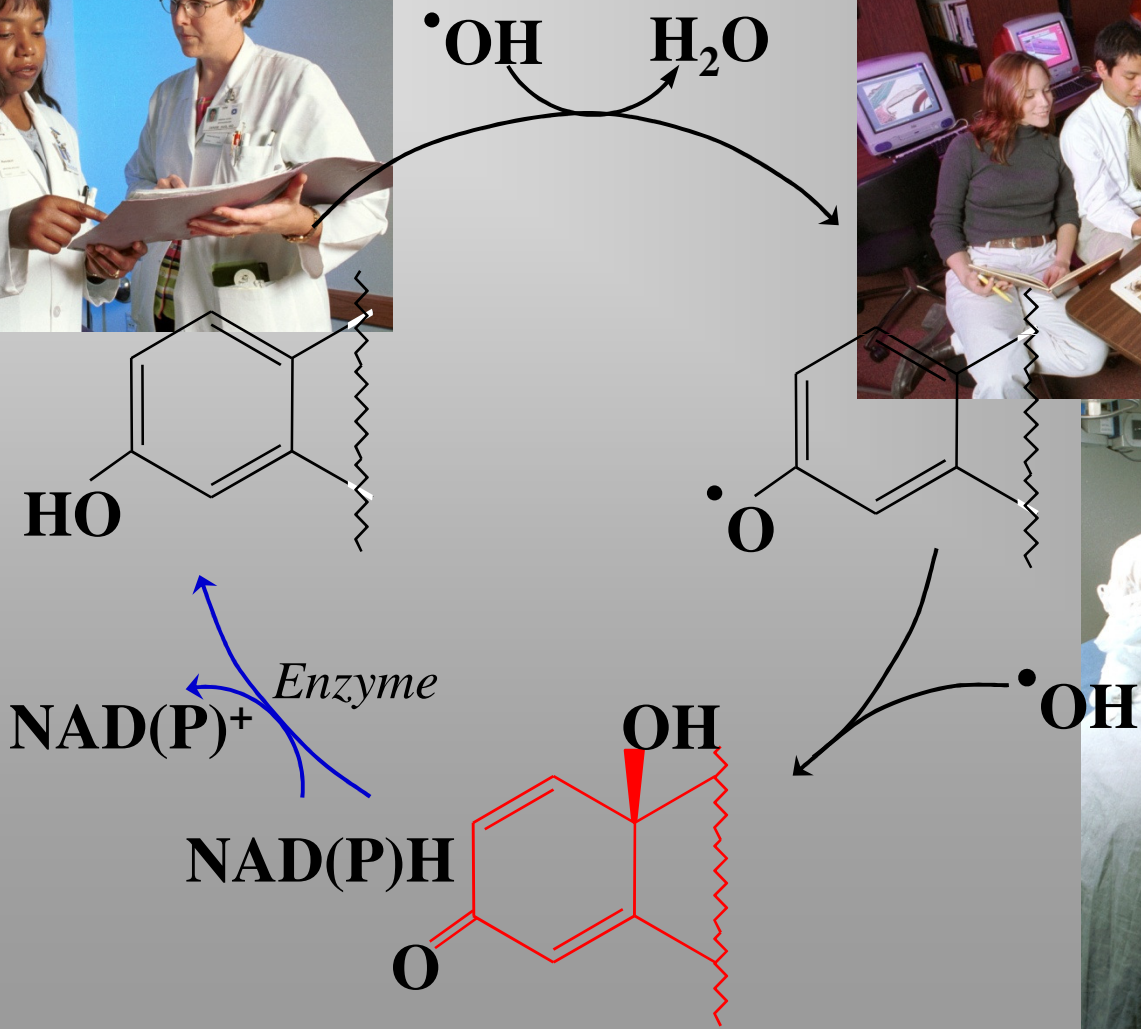
Collaboration between UMKC and Kansas City Medical Centers offers an unprecedented **interdisciplinary synergy with a unified goal:**

to better diagnose, prevent, and treat eye disease and vision disorders in order to make a difference in the lives of tens of millions of people worldwide.

Basic Research



Translational Research



Translational Research



- Pharmaceuticals
- Biologicals
- Nutrition
- Biologicals / Sensor Technology
- Micro- / Nano-Sensor Technology
- Devices
- Facilities

Clinical Research



Clinical Research

Ongoing Clinical Trials

Age-Related Macular Degeneration



- **Neovista** - A phase II randomized study involving the use of an intravitreal pharmaceutical agent, alone or with Epirad90 treatment. For potential treatment of subfoveal choroidal neovascularization associated with wet macular degeneration.
- **Regeneron AMD** - A phase III study involving the use of an intravitreal pharmaceutical agent that is already FDA approved called Lucentis versus an investigational pharmaceutical agent. For the potential treatment of subfoveal choroidal neovascularization associated with wet macular degeneration.
- **Macusight AMD** - A phase II study involving the combined use of an FDA approved pharmaceutical agent called Lucentis with an investigational pharmaceutical agent. For the potential treatment of subfoveal choroidal neovascularization associated with wet macular degeneration.
- **Age-Related Eye Disease Study (AREDS)** - The Eye Foundation was selected by the National Eye Institute as a study site for AREDS II, a multi-center randomized trial of 4,000 participants. This Phase III study is attempted to determine whether high supplemental doses of lutein, zeaxanthin and omega-3 fatty acids affect the development of advanced AMD. (closed)
- **Sirion Trial** - A phase II study involving the use of an investigational systemic medication to potentially treat dry macular degeneration. (closed)
- **Alimera Diabetic Trials** - Two phase II trials involving investigational intravitreal inserts of a slow release medication to potentially inhibit the growth of abnormal blood vessels associated with diabetic retinopathy. (closed)
- **Rise Trial** - A phase III trial involving the intravitreal injection of an investigational medication to potentially inhibit the growth of abnormal blood vessels associated with diabetic retinopathy. (closed)
- **Allergan Trial** - A phase II study involving an intravitreal drug delivery system, sometimes in combination with laser. This trial is for potentially inhibiting the growth of abnormal blood vessels associated with diabetic retinopathy. (closed)

Clinical Research

Ongoing Clinical Trials Diabetic Retinopathy



- **Regeneron DME** - A phase II study involving the use of an investigational intravitreal pharmaceutical agent to potentially inhibit the growth of abnormal blood vessels associated with diabetic eye disease.
- **Macusight DME** - A phase II study involving the use of an investigational intravitreal pharmaceutical agent to potentially inhibit the growth of abnormal blood vessels associated with diabetic eye disease.
- **Alimera Diabetic Trials** - Two phase II trials involving investigational intravitreal inserts of a slow release medication to potentially inhibit the growth of abnormal blood vessels associated with diabetic retinopathy. (closed)
- **Rise Trial** - A phase III trial involving the intravitreal injection of an investigational medication to potentially inhibit the growth of abnormal blood vessels associated with diabetic retinopathy. (closed)
- **Allergan Trial** - A phase II study involving an intravitreal drug delivery system, sometimes in combination with laser. This trial is for potentially inhibiting the growth of abnormal blood vessels associated with diabetic retinopathy. (closed)

Clinical Research

Ongoing Clinical Trials

Vitreomacular Traction (Macular Pucker/Macular Hole)

- **Thrombogenerics** - A phase III study involving the use of an investigational intravitreal pharmaceutical agent to potentially release vitreal traction of macula and potentially close small macular holes. These conditions have traditionally been treated surgically.

Visual Rehabilitation Therapy Trial

- **Novavision VRT** - A potential vision restoration therapy using complex stimuli in patients with central vision loss due to dry maculopathy.



Patient Care



“Vision for the Future”

- The Answer

The **Vision Research Center** continues to gain national prominence through **publications** in various professional journals and presentations at scientific conferences by its faculty members, researchers, post-doctoral associates, and graduate students. It also provides significant **opportunities for students and doctors in training** at UMKC to work on innovative research studies.