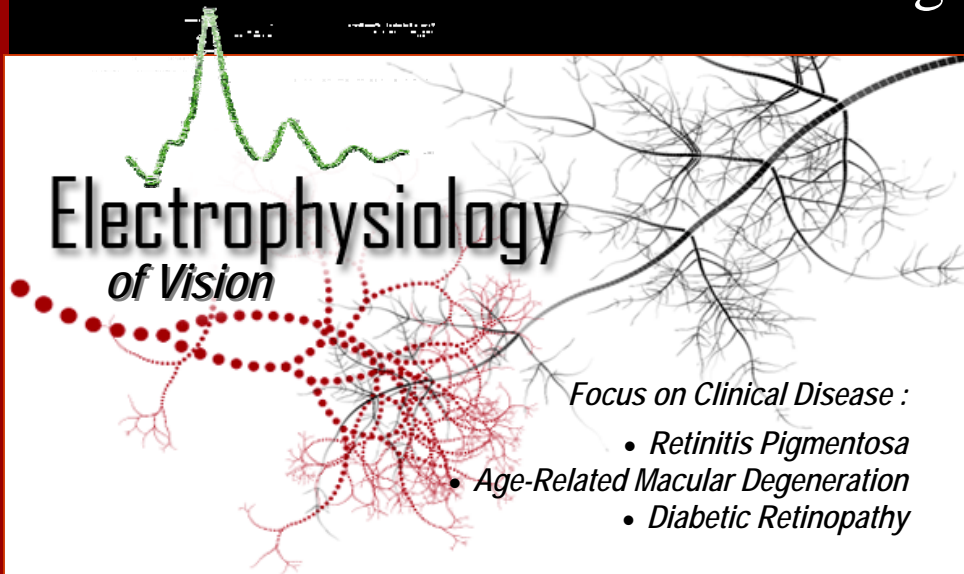




Electrophysiology of Vision: Conference *and* Hands-on Training



March 3-5, 2010

**Texas Tech University Health Sciences Center
Paul L. Foster School of Medicine
Medical Education Building
Auditorium 1200**

**Sponsored by:
Texas Tech University Health Sciences Center,
Department of Ophthalmology,
Office of Continuing Medical Education**

TARGET AUDIENCE

This activity is intended for general ophthalmologists, retina specialists and vision researchers who are interested in increasing their competence in electrophysiology. It is also intended for technicians who are interested in learning the techniques in performing electroretinograms as well as the basics of waveform interpretation.

CONCEPT

This course will offer instruction in how to perform as well as interpret electrodiagnostic studies. Emphasis will be placed on the basic aspects of electrophysiology including waveform interpretation and making clinical diagnoses. Detailed examinations of using electrodiagnostics to understand the cellular and molecular genetics of disease will be provided. A wet-lab will provide hands-on instruction on how to perform ERGs and an interactive workshop will provide an experience in ERG interpretation.

OBJECTIVES

Upon completion of this activity, participants should be able to:

- Implement electrophysiology testing to make clinical diagnoses and monitor ophthalmologic disease.
- Identify the cellular mechanisms involved in generating retinal electric currents as relevant to clinical disease, including diabetic retinopathy, age-related macular degeneration, and retinitis pigmentosa.
- Distinguish between technique-related versus physiologic and pathologic (clinical disease-related) variations in waveforms.
- Interpret ERG waveforms in the setting of genetic retinal disease, including retinitis pigmentosa.
- Apply the ERG to long-term and large-scale safety testing of agents for clinical disease such as diabetic retinopathy and age-related macular degeneration.
- Perform an electroretinogram in the clinical setting and trouble-shoot clinical electroretinography.
- Discuss ERG waveforms in rodent models of retinal degeneration with the goal of interpretation of ERG waveforms for clinical treatments in retinitis pigmentosa in humans.
- Identify the factors influencing the ERG in midsize and larger animals and relate these variations in testing to animal models of human disease.
- Recognize the challenges recording an ERG as a biomarker and when to trust the data especially as it relates to human clinical electroretinography.
- Identify how the ERG can be used to assess treatment outcomes for human retinal disease or to assess retinal toxicity of local or systemic therapies.
- Determine when to use a multifocal ERG and how to interpret its results especially in relation to a full-field ERG, with particular emphasis on human macular disease such as diabetic macular edema or age-related macular degeneration.

ACCREDITATION

This activity has been planned and implemented in accordance with the Essential Areas and Policies of the Accreditation Council for Continuing Medical Education (ACCME) through the sponsorship of Texas Tech University Health Sciences Center. Texas Tech University Health Sciences Center is accredited by The Accreditation Council for Continuing Medical Education (ACCME) to sponsor continuing medical education for physicians. Texas Tech University Health Sciences Center takes responsibility for the content, quality, and scientific integrity of this CME activity.

Credit Designation

Texas Tech University Health Sciences Center Office of Continuing Medical Education designates this educational activity for a maximum of 16.25 *AMA PRA Category 1 Credit(s)*[™]. Physician should only claim credits commensurate with the extent of their participation in the activity.

Texas Tech University Health Sciences Office of Continuing Medical Education presents this activity for educational purposes only. Participants are expected to utilize their own expertise and judgment while engaged in the practice of medicine. The content of the presentations provided solely by the presenters who have been selected for presentation because of recognized expertise in their field.

CONFERENCE INFORMATION

If you have any questions regarding this conference, please contact Maria Morales at maria.g.morales@ttuhsc.edu or (915) 783-6219, Texas Tech University Health Sciences Center Paul L. Foster School of Medicine, Department of Continuing Medical Education. Additional copies of this brochure may be printed from the CME web site at:

www.ttuhsc.edu/cme.

Texas Tech University Health Sciences Center reserves the right to cancel this conference or make speaker substitutions in the event of unforeseen extenuating circumstances.

Conference dress is casual and each attendee is encouraged to bring a sweater or jacket for comfort during the meeting.



Persons with disabilities who may need auxiliary aids or services must submit a written request the TTUHSC Office of CME, so that appropriate arrangements, if any, can be made. If a written request is not received at least one week prior to the program date, individuals are responsible to hire and pay for their own auxiliary aids or services.

ACKNOWLEDGEMENTS

The program planning committee wishes to acknowledge the support of this conference through educational grants and exhibits; however Texas Tech University Health Sciences Center, the Office of Ophthalmology, and the Office of Continuing Medical Education do not imply endorsement of any commercial products. A list of exhibitors and grantors will be included in the conference syllabus provided to each attendee.

The program planning committee wishes to acknowledge the following exhibitors who are confirmed at the time of publication for the purchase of exhibit space in support of this conference:

- Diagnosys, LLC
- LKC Technologies
- Electro-Diagnostic Imaging, Inc.

PRE-REGISTRATION

To pre-register, please mail the attached conference registration form with your payment no later than February 22, 2010. Notification of registration cancellation must be received by February 22, 2010, to obtain a refund less a \$50.00 administrative fee; thereafter, no refunds will be made. Refund requests must be in writing.

HOTEL INFORMATION

Hilton Garden Inn El Paso
111 West University Avenue
El Paso, Texas 79902
Tel: (915) 351-2121
Fax: (915) 351-2020

Please call the hotel directly to make your reservation. Refer to code **TTMC** for a special conference rate.

*Shuttle service will be provided for guests from the Hilton Garden Inn, El Paso to the conference.

GUEST FACULTY

Rafael Caruso, M.D.

Professor
Visual Function Section
University of Pennsylvania
Philadelphia, Pennsylvania

Stuart G. Coupland, Ph.D.

Associate Professor of Ophthalmology
University of Ottawa Eye Institute
Ottawa, Ontario, Canada

Laura Frishman, Ph.D.

Associate Dean and Moores Professor
University of Houston College of Optometry
Houston, Texas

Mary Johnson, Ph.D.

Associate Professor
Department of Ophthalmology and Visual Sciences
University of Maryland
Baltimore, Maryland

Andras Komaromy, DMV, Ph.D.

Assistant Professor of Ophthalmology
School of Veterinary Medicine
University of Pennsylvania
Philadelphia, Pennsylvania

Machelle Pardue, Ph.D.

Associate Professor
Department of Ophthalmology
Atlanta VA Medical Center
Emory University
Atlanta, Georgia

Yves Sauvé, Ph.D.

Assistant Professor
Director of Research
Department of Ophthalmology
University of Alberta
Edmonton, Alberta, Canada

Erich Sutter, Ph.D.

Adjunct Professor
Department of Ophthalmology
University of California, San Francisco
San Francisco, California

James Ver Hoeve, M.S., Ph.D.

Senior Scientist
University of Wisconsin
Madison, Wisconsin

TTUHSC FACULTY

Neal Adams, M.D.

Chair and Associate Professor
Department of Ophthalmology
TTUHSC Paul L. Foster School of Medicine
El Paso, Texas

Rockefeller Young, Ph.D.

Professor
Department of Ophthalmology
Texas Tech University Health Sciences Center
Lubbock, Texas

FACULTY DISCLOSURE

This program and its contents do not imply endorsement of any products. Disclosure statements have been requested from the invited speakers and will be presented at the conference.

PROGRAM

MARCH 3, 2010

The Electroretinogram in the Clinical Setting

- 7:00 am - 8:00 am **Registration/Continental Breakfast**
- 8:00 am - 8:15 am **Welcome**
Neal Adams, M.D.
- 8:15 am - 9:45 am **Cellular Basis of ERG Signals:
Functionally Dissecting the Retina**
Laura Frishman, Ph.D.
- 9:45 am - 10:45 am **Waveform Methodologies:
Analyzing Waveform Variances From a Single Subject**
Rockefeller Young, Ph.D.
- 10:45 am - 11:00 am **Break**
- 11:00 am - 12:00 noon **Keynote Address**
**Using the ERG to Functionally Dissect the Retina:
The Role of the ERG in Clinical Trials**
Stuart Coupland, Ph.D.
- 12:00 noon - 1:00 pm **Lunch** (Provided)
- 1:00 pm - 2:00 pm **The ERG for Clinical Safety Testing of Ophthalmic Drugs:
A Focus on Large-Scale Pre-Clinical Safety Evaluations**
James Ver Hoeve, Ph.D.
- 2:00 pm - 5:00 pm **Wet-Lab**
ERG Testing Protocols in Humans

PROGRAM

MARCH 4, 2010

The Electroretinogram in Animal Models of Eye Disease

- 7:00 am - 8:00 am **Registration/Continental Breakfast**
- 8:00 am - 9:00 am **Electroretinography in Rodent Models of Retinal
Degenerations and Therapies:
Interpretations and Methodologies**
Yves Sauvé, Ph.D.
- 9:00 am - 10:00 am **Species Differences in ERG Testing:
Technical Consideration for the ERG Testing of
Midsize & Larger Animal Species**
Andras Komaromy, DrMedVet, Ph.D.
- 10:00 am - 10:15 am **Break**
- 10:15 am - 11:15 am **The ERG as an End-Point in Animal Models of Eye Disease**
Mary Johnson, Ph.D.
- 11:15 am - 12:15 pm **Combined Functional and Structural Imaging:
The Role of the ERG Combined with MRI and OCT**
Machelle Pardue, Ph.D.
- 12:15 pm - 1:15 pm **Lunch** (Provided)
- 1:30 pm - 4:30 pm **Wet-Lab**
ERG Testing Protocols in Animal Models

MARCH 5, 2010

- 7:00 am—8:00 am **Registration/Continental Breakfast**
- 8:00 am - 9:00 am **The ERG for Clinical Diagnoses:
The ERG and Molecular Genetics**
Rafael Caruso, M.D.
- 9:00 am - 9:45 am **The Clinical Role of the Multifocal ERG**
Neal Adams, M.D.
- 9:45 am - 10:00 am **Break**
- 10:00 am - 11:00 am **The Role of the Multifocal ERG in Diagnosing Retinal Disease:
The Relationship Between Multifocal & Full-Field ERGs**
Erich Sutter, Ph.D.
- 11:00 am - 12:00 pm **The Widefield Multifocal ERG**
Stuart Coupland, Ph.D.

REGISTRATION

Electrophysiology of Vision: Conference and Hands-on Training, March 3-5, 2010

Please fill in all blanks. The information is being gathered for statistical reporting as well as registration. A registration form must be completed for each attendee. Photocopies of the registration form are acceptable.

Please Print or Type

Last Name _____ First Name _____ MI _____

Highest Degree _____ Name Badge Preference _____

Specialty _____ Telephone _____

E-mail Address _____

Facility of Practice Street Address _____ City/County/State/Zip Code _____

Faculty Resident Fellow Scientist Technologist Other

(Registration fee includes materials, breakfast, lunch, and breaks.)

Registration Fee for March 3-5, 2010 : \$425.00

A \$50 late fee applies to registrations received after February 22, 2010.

Cancellations: Written notification of registration cancellation must be received in the CME office by February 22, 2010 in order to obtain a refund less a \$50.00 administrative fee; thereafter no refund will be made.

Please make check payable to "TTUHSC CME"

Mail to: **Texas Tech University Health Sciences Center
Office of Continuing Medical Education
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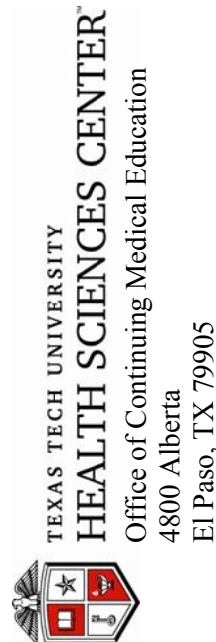
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