

## **Advances in Medical Glaucoma Management: Video #1**

### **Statement of Need Learning Objectives Faculty and Disclosure Statements**

<http://cme.ufl.edu/ed/self-study/videos-glaucoma-management/>

#### **TARGET AUDIENCE**

This educational activity is intended for ophthalmologists and ophthalmologists in residency or fellowship training.

#### **LEARNING OBJECTIVES**

Upon completion of this series of activities, participants should be able to:

- Treat glaucoma patients so as to most effectively reduce their risk of glaucomatous progression and visual loss
- Explain the basic pathophysiology of glaucoma, from IOP to newer mechanisms such as the role of ocular perfusion pressure and the role of nitric oxide, an important physiological signaling molecule that plays a key role in IOP regulation in healthy eyes
- Utilize results from peer-reviewed studies, including comparative studies of agents, in choosing therapies
- Choose appropriate therapies based on understanding of mechanism(s) of action, safety, efficacy, compliance, and duration of effect
- Among agents with maximum efficacy and safety, select those that minimize patient burden and maximize compliance
- Implement evidence-based strategies for determining/achieving target IOP
- Make evidence-based decisions about when to treat ocular hypertension
- Explain the mechanism of action, benefits, and risks of established and new therapies, from medications that suppress aqueous humor production, such as beta blockers; to medications that increase aqueous outflow, such as prostaglandin analogs; to newer agents such as nitric oxide donating prostaglandin receptor agonists

#### **ACTIVITY DIRECTOR**

James C. Tsai, MD, MBA, is the president of New York Eye and Ear Infirmary of Mount Sinai and chair of ophthalmology for the Mount Sinai Health System. He is a consultant for Aerie Pharmaceuticals and Inotek Pharmaceuticals.

#### **ABOUT *Advances in Medical Glaucoma Management***

*Advances in Medical Glaucoma Management* is jointly sponsored by Candeo Clinical/Science Communications, LLC, and the University of Florida College of Medicine. This publication is administered by an independent editorial board and supported by an unrestricted educational grant from Bausch + Lomb, Inc.

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## **CME REVIEWER**

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## **STATEMENT OF NEED**

After more than a decade in which no new drug class has been approved for treatment of glaucoma, at least three new ocular antihypertensive drugs are poised for approval within the coming 1-2 years. In an environment where novel agents for the treatment of glaucoma are coming to market with unprecedented rapidity, ophthalmologists are challenged to provide the highest quality care, based on the best and most recent data.

But sifting through that data is a challenge: There are competing claims from manufacturers and a plethora of basic and clinical science papers in the peer-reviewed journals on new topics, including the relationship between ocular perfusion pressure and glaucomatous damage and the impact of nocturnal intraocular pressure fluctuations on glaucomatous disease progression.

The result is a significant need for the *clear, actionable* information that supports evidence-based clinical decision making that is readily accessible by comprehensive ophthalmologists. This is especially the case for ophthalmologists who treat glaucoma but do not consider it a subspecialty interest. This knowledge gap can have a substantial impact on patients—glaucoma is the second leading cause of blindness worldwide and affects a significant and growing portion of the US population.<sup>1,2</sup>

*Advances in Medical Glaucoma Management* will present new medical glaucoma therapies and trial data in the context of what is needed to offer comprehensive ophthalmic care. Clear, evidence-based, actionable insights from subspecialists and researchers will help clinicians give their glaucoma patients the full benefit of treatment advances.

## **References**

1. Resnikoff S, Pascolini D, Etya'ale D, et al. Global data on visual impairment in the year 2002. *Bull World Health Organ.* 2004 November;82(11):844-51.

2. Eye Diseases Prevalence Research Group. Prevalence of open-angle glaucoma among adults in the United States. *Arch Ophthalmol.* 2004;122:532-8.

## **OFF-LABEL USE STATEMENT**

This work may discuss off-label uses of medications.

## GENERAL INFORMATION

This CME activity is sponsored by the University of Florida College of Medicine and is supported by an unrestricted educational grant from Bausch + Lomb, Inc.

**Directions:** Select one answer to each question in the exam (questions 1–15). Please take the evaluation at the end of the quiz.

The University of Florida College of Medicine designates this enduring material for a maximum of 1.0 *AMA PRA Category 1 Credit*<sup>™</sup>. There is no fee to participate in this activity. In order to receive CME credit, participants should watch the video, and then take the posttest. A score of 80% is required to qualify for CME credit. Estimated time to complete the activity is 60 minutes. Take the test online at <http://cme.ufl.edu/ed/self-study/videos-glaucoma-management/>.

System requirements for this activity are: *For PC users:* Windows® 2000, XP, 2003 Server, or Vista; Internet Explorer® 6.0 or newer, or Mozilla® Firefox® 2.0 or newer (JavaScript<sup>™</sup> and Java<sup>™</sup> enabled). *For Mac® users:* Mac OS® X 10.4 (Tiger®) or newer; Safari<sup>™</sup> 3.0 or newer, Mozilla® Firefox® 2.0 or newer; (JavaScript<sup>™</sup> and Java<sup>™</sup> enabled).

Internet connection required: Cable modem, DSL, or better.

**DATE OF ORIGINAL RELEASE** February 2017. Approved for a period of 12 months.

## ACCREDITATION STATEMENT

This activity has been planned and implemented in accordance with the accreditation requirements and policies of the Accreditation Council for Continuing Medical Education through the joint providership of the University of Florida College of Medicine and Candeo Clinical/Science Communications, LLC. The University of Florida College of Medicine is accredited by the ACCME to provide continuing medical education for physicians.

## CREDIT DESIGNATION STATEMENT

The University of Florida College of Medicine designates this enduring material for a maximum of 1.0 *AMA PRA Category 1 Credit*<sup>™</sup>. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

## FACULTY AND DISCLOSURE STATEMENTS

### **Activity Director: James Tsai, MD, MBA**

James C. Tsai, MD, MBA, is the president of New York Eye and Ear Infirmary of Mount Sinai and chair of ophthalmology for the Mount Sinai Health System. Dr. Tsai states that in the last 12 months, he has been a consultant for Aerie Pharmaceuticals and Inotek Pharmaceuticals.

### **Video #1: Basic Science and Clinical Introduction**

**Joseph Caprioli, MD**, is the David May II Professor of Ophthalmology, chief of the Glaucoma Division, and director of the Glaucoma Basic Science and Clinical Laboratories, Jules Stein Eye Institute, at the University of California, Los Angeles. Dr. Caprioli states that in the past 12 months, he has not had a financial relationship with any commercial organization that produces, markets, resells, or distributes healthcare goods or services consumed by or used on patients relevant to this manuscript.

**Paul L. Kaufman, MD**, is the Ernst H. Bárány Professor of Ocular Pharmacology and Peter A. Duehr Professor and Department Chair Emeritus at the University of Wisconsin School of Medicine and Public Health in Madison, WI. Dr. Kaufman states that in the last 12 months, he has been a consultant for Applied Genetic Technologies Corporation, Alcon, Allergan, Bausch + Lomb, Amakem Therapeutics, Refocus Group, Sucampo Pharmaceuticals, and Valeant Pharmaceuticals. Dr. Kaufman also states that he has received grants from Lens AR, Inc./Frey Research LLC, ZLens LLC, WARF, Vista Ocular LLC, and ReGen Eye. Dr. Kaufman also states that he has received royalties from WARF.

## **DISCLAIMER**

Participants have an implied responsibility to use the newly acquired information to enhance patient outcomes and professional development. The information presented in this activity is not meant to serve as a guideline for patient care. Procedures, medications, and other courses of diagnosis and treatment discussed or suggested in this activity should not be used by clinicians without evaluation of their patients' conditions and possible contraindications or dangers in use, applicable manufacturer's product information, and comparison with recommendations of other authorities.

## **COMMERCIAL SUPPORTERS**

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