New Windows into the Brain: 
Technological Advances in Frontline 
Neurologic Diagnosis via the Visual 
and Oculomotor Systems

**Program Director**  
Janet C. Rucker, MD, New York, NY

**Program Description**

Novel approaches have been developed in neuro-ophthalmology to assist clinicians with improved clinical diagnostic accuracy and efficiency in settings spanning from the initial frontline clinical encounter to tertiary care referral. Several examples of such new approaches will be highlighted in this course, including improved detection of dangerous causes of non-traumatic headache with non-mydriatic fundus photography, improved detection of concussion by incorporation of visual testing, and improved detection and clinical follow-up of optic nerve disease with ocular coherence tomography. Illustrative cases will be amply utilized to assist the attendee in understanding the clinical utility of these novel approaches, as well as an overview of the research supporting their use and discussion of methods to integrate the new techniques into current neurological practice.

**Learning Objectives**
Upon completion, participants should be able to understand the limitations of fundoscopy with current techniques and incorporate non-mydriatic fundus photography into clinical practice; apply current diagnostic tests of concussion in the clinic or on the sidelines of sports; and use ocular coherence tomography in the clinical care of patients with optic nerve disease.

**Recommended Audience**
Trainee; General Neurologist; Specialist Neurologist; Non-neurologist; Advanced Practice Provider

**Core Competencies**
Medical Knowledge; Patient Care; Practice-based Learning and Improvement

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**Schedule**

<table>
<thead>
<tr>
<th>Time</th>
<th>Session Title</th>
<th>Speaker(s)</th>
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<tbody>
<tr>
<td>1:15 p.m.–2:00 p.m.</td>
<td>Insight from the Eyes: Non-mydriatic Ocular Fundus Photography in Neurological Emergencies</td>
<td>Beau B. Bruce, MD, Atlanta, GA</td>
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<tr>
<td>2:00 p.m.–2:45 p.m.</td>
<td>The Future of Sideline Assessment: Tackling Concussion and TBI Right Between the Eyes</td>
<td>Steven Galetta, MD, FAAN, New York, NY</td>
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<td>2:45 p.m.–3:00 p.m.</td>
<td>Break</td>
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<tr>
<td>3:00 p.m.–3:45 p.m.</td>
<td>The Optic Neuropathy Puzzle: Advances in Structural Optic Nerve Assessment with Ocular Coherence Tomography</td>
<td>Laura J. Balcer, MD, MSCE, FAAN, New York, NY</td>
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<tr>
<td>3:45 p.m.–4:15 p.m.</td>
<td>Questions and Answers</td>
<td>Faculty</td>
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**RECOMMENDED COMPANION COURSE**   -   PAGE 7

What Went Wrong? Pearls and Pitfalls in the Diagnosis and Management of Common Neuro-ophthalmologic and Neuro-otologic Cases