Nominations Sought for Board Positions

It is time to solicit nominations for the Academy’s biennial change of leadership, including a new president elect, secretary, treasurer, and director positions. Members are encouraged to self-nominate or nominate a respected colleague between June 1 and September 1, 2016.

“Member representation drives our organization,” said AAN President Terrence L. Cascino, MD, FAAN. “It is paramount that our leadership roles reflect the diversity of neurology, both in terms of professional focus, such as solo and small practice settings, as well as the demographic characteristics including our increasingly growing female membership population and experiences of our members. We need smart members who can quickly identify problems and possible solutions. We need passionate members who believe in our profession and want to take it to the next level. And we need committed members who can take on these responsibilities even as they give their all in their daily work—whether treating patients, teaching students, or researching causes and cures. If you think you have what it takes, please consider nominating yourself or an interested colleague for these positions.”

Continued on page 30

Sports Concussion Conference Evolves with Latest Concussion Research

The AAN Sports Concussion Conference—now in its third year—is designed to be a cutting-edge, multidisciplinary conference grounded in the very latest, evidence-based science for diagnosis and management. As the science evolves in the understanding of concussion, so too does the Sports Concussion Conference.

Continued on page 5

Registration Opens This Month for 2016 AAN Fall Conference

Registration opens this month for the AAN Fall Conference, set for October 14 through 16 at The Cosmopolitan of Las Vegas. The Fall Conference is your year-end destination for acquiring the latest clinical advances in neurology from experts in the field while earning up to 15.75 CME credits.

See What’s New!

- **Greater Value**
  The Fall Conference now offers greater value than ever with a new, all-inclusive registration rate!

- **Flexibility and Customization**
  With the popular Neurology Update and Practice Management programs now offered in 12 90-minute sessions (six Practice

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NEWS BRIEFS
The AAN has collaborated with the CDC to develop a webinar on diagnosis, management, and treatment of Guillain-Barré syndrome to address some of the timely aspects that surround the Zika virus. It will be directed by Ted M. Burns, MD, on June 17 at 12:00 p.m. ET. Watch for more details on AAN.com. •
President’s Column

New Grant Will Help Increase Number of Medical Students Going into Neurology

I have some exciting news to share with you, but first I want to provide some background about the future of our neurology workforce, which has long been a concern of the Academy’s leadership. This was an issue when I was chair of the Education Committee in the late 1990s, and also for Dr. Ralph Józefowicz when he helmed the committee. In fact, more than 20 years ago, Dr. Józefowicz coined the term “neurophobia” to describe students’ negative perception of neurology, that the “neural sciences are overly complex.” He suggested that a lack of integration of basic and clinical information was a potential driver of neurophobia. There is recent evidence that neurophobia may, indeed, be driven by weak basic neuroscience and neuroanatomy courses during the preclinical years. We hypothesize that neurophobia is a common barrier to entering neurology. But we also know that lower reimbursement for evaluation and management services compared to procedures is a factor as well.

In 2011, then-President Dr. Robert C. Griggs established the Workforce Task Force to determine both the magnitude of the current and projected neurologist shortage, as well as the likely consequences. Past President Dr. Timothy A. Pedley and Dr. William D. Freeman co-chaired the task force.

As Dr. Pedley reported to members in June 2013, what our Workforce Task Force discovered was alarming: The United States was experiencing an 11-percent shortfall in neurologists that will grow to 19 percent by 2025. Indicators pointing to an inadequate supply of neurologists included the number of days it takes to see a neurologist (35) compared to a family practitioner (20) or a cardiologist (15). Another is the number of unfilled positions due to the difficulty in hiring neurologists. There are also geographic disparities. While there is a relative abundance of neurologists in most of the New England area and Minnesota, demand in nearly all remaining states is—or, by 2025 will grow to be—much greater than the available supply.

Among the recommendations from the Workforce Task Force was to increase the number of neurologists in the clinical workforce by making neurology a more attractive choice of specialty for medical students. This will require addressing a significant income gap between procedural and non-procedural specialties, and we have been working on this from many different angles, from fighting for fair reimbursement on Capitol Hill and at the Centers for Medicare & Medicaid Services to championing telestroke legislation in Congress. Also, to bolster patient access to neurologic care, we are bringing in nurse practitioners and physician assistants as AAN members and providing distinct neurology training suitable for their roles.

The critical gap in the professional development of neurologists is the transition from medical school to neurology residency. Despite the growing demand and exciting developments in our field, the percentage of medical students entering neurology is persistently inadequate at approximately 2.6 percent per year. In 2015, 412 allopathic medical graduates matched into neurology residency programs. Clearly, a dedicated effort is required to address this problem and the AAN is just the organization to tackle it. And we found a unique partner to assist us: the Conrad N. Hilton Foundation.

The Conrad N. Hilton Foundation invests in seeking a cure and improving quality of life for those who live with multiple sclerosis. A priority of the foundation is ensuring that those with MS have access to the care they need to live full and happy lives. The foundation believes that increasing interest in the field of neurology is essential, not just for patients who will receive care, but for continued advancement in MS research.

The AAN has received a significant three-year grant from the Conrad N. Hilton Foundation that will run until April 30, 2019. The objective of this program is to increase the percentage of medical students entering neurology by 25 percent over the program’s duration (for a total of 515 allopathic graduates in 2019). Achieving this goal will substantially address the current 11-percent shortfall and 80 percent of the projected shortfall in 2025. Because much of the focus is on establishing enduring programs, we anticipate further growth in future years.

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Terrence L. Cascino, MD, FAAN
Meet Your Leader

Orly Avitzur, MD, MBA, FAAN

This is the latest in a series of profiles of members of the Board of Directors for the AAN and AAN Institute.

Orly Avitzur, MD, MBA, FAAN, is a clinical instructor at Yale University School of Medicine in New Haven, CT, and a clinical assistant professor at New York Medical College in Valhalla, NY, with neurology practices in Tarrytown and Carmel, NY. She is the medical director of Consumer Reports, editor-in-chief of Neurology Now®, associate editor of Neurology Today®; chair of the Medical Economics and Management (MEM) Committee, former editor-in-chief of AAN.com, and former chair of the Audit Committee and the Practice Management and Technology Subcommittee.

What experience and viewpoints do you bring to the role?

As a neurologist in private practice, I am acutely aware of the day-to-day demands on our members. I, too, comply with meaningful use of electronic health records and quality reporting (PQRS), while struggling to find enough time to see my patients and provide good care.

Having an MBA gives me a different perspective on the delivery of health care and additional skills to evaluate various business proposals. Moreover, my last eight years working for a consumer publication with a large portfolio has provided me with an understanding of the publishing industry and its current challenges.

From your experiences as an AAN leader, what is one of the more common misperceptions members may have about the Academy?

I have heard from members who are frustrated with the Academy as a result of the changes in today’s health care environment with its excessive regulatory demands and reduced reimbursement. The loss of the consultation codes in 2010 hit everyone hard, but was a global defeat which affected all physicians. The subsequent reductions in electrodiagnostic testing payments in 2013 was another serious defeat which affected a large number of our members. When the AAN appealed the cuts to a review panel, it actually won the argument, but CMS nevertheless stood by its original decision, and enforced the nerve conduction cuts as they had done to procedures from other medical specialties over the past several years.

As an active volunteer on the MEM Committee and its current chair, I have witnessed extraordinary efforts to protect the interests of neurologists. We have successfully gone on to defend EEG codes and many other services since that time thanks to a group of dedicated volunteers and Academy staff who devote themselves to advocating for neurologists. I would encourage anyone with an interest in preserving the practice of neurology to find a role in the AAN, amongst its many committees, work groups or sections, or within state organizations, and add their voice towards these efforts.

In your view, how does the AAN benefit the field of neurology most?

The AAN’s educational offerings are broad and comprehensive and provide excellence in continuing education. Its investment into member resources is much broader in scope than most organizations, and allows its members opportunities to learn through in-person venues, webinars, and a variety of print and online publications.

How should members evaluate the success of the AAN and the Board of Directors in supporting their careers and neurology in general?

The changes affecting physician payment over the past several years have been many and far-reaching. And we are about to experience even greater changes due to the passage of the Medicare Access and CHIP Reauthorization Act of 2015 (MACRA) and its implementation which will accelerate the shift from fee-for-service to alternative payment models. It is important to distinguish those external environmental forces affecting all physicians from those which focus strictly on neurologists, and to measure success through that lens. The AAN and its staff have truly done a remarkable job getting us prepared.

How do you deal with the challenges of balancing the demands of your work and personal life?

I currently work part-time in solo practice, serve as medical director at Consumer Reports, and as editor-in-chief of Neurology Now. I sincerely enjoy patient care and it helps to inform my health care reporting. I feel very lucky that I have so much diversity in my jobs and each are tremendously fulfilling. I rarely feel the tension of work-life imbalance because I truly enjoy each of those roles and feel tremendously lucky to be able to do something different every day! •
This year’s conference is no exception. Set for July 8 through 10 at the Hilton Chicago, the 2016 Sports Concussion Conference will engage a wide range of disciplines in discussions about the latest information in the world of sports concussion at the high school, collegiate, and professional levels. Through relevant hands-on workshops and debates, attendees will learn to apply the latest diagnosis and treatment of concussion protocols, understand post-concussion syndrome and how the field is moving beyond complete rest and toward more active rehab, better understand the continuum of the concussion model from prevention to monitoring to recovery, and earn up to 20 CME credits.

Vernon B. Williams, MD, chair of the AAN Sports Section, sat down with Sports Concussion Conference Workgroup member David W. Dodick, MD, to learn more about what attendees can expect.

Williams: What new topics will be covered at this year’s Sports Concussion Conference?

Dodick: This year’s conference will discuss the importance and methods of evaluating vision and eye movements in those suspected of having concussion. In addition, the evidence for and practical method of using vision and eye movement training to enhance recovery will be reviewed and demonstrated. Because there are few medical issues which have received more attention in the popular media over the past five years than concussion, we will hold a thoughtful conversation with knowledgeable media personalities on responsible reporting of concussion science, treatment advances, and public and organizational concussion policy. Finally, attendees can expect a review of emerging strategies to accelerate recovery, as well as emerging treatment targets. There will be updates on emerging objective diagnostic tools, and blood and brain imaging markers which show promise in the diagnosis and prognosis of concussion.

Williams: What can attendees expect from the new Boot Camp, which will be kicking off the conference?

Dodick: The Boot Camp will be a practical hands-on, how-to session where the evaluation of concussion prior to participation in sport, on the sideline, and in the clinic will be reviewed. In addition, a focus on vestibular, balance, and the visual examination will be held with experts in each respective field. Finally, return to learn and return to play strategies and their practical implementation will be reviewed.

Williams: There has been great effort to reach out to and invite physical therapists, athletic trainers and coaches, pediatricians and family physicians—can you explain the theory behind this?

Dodick: Yes, the evaluation and management of concussion is a multidisciplinary exercise that involves the expertise of several disciplines and all of those who are responsible for the safety of the athlete—the conference was developed with all stakeholders in mind and will provide education and updates relevant to each group.

Williams: Why is this conference unique from other concussion conferences?

Dodick: This is a conference which has been developed by experts from multiple disciplines for attendees from multiple disciplines. It is a state-of-the-art conference driven by the most recent advances in the clinical science of concussion and designed to provide a near- and long-term view of the future while providing tools, information, and pearls that can be immediately and practically implemented into clinical practice on Monday. •

June 14 Is Last Chance to Save up to $200 on Registration!

Hurry—money-saving early registration discounts end June 14. Don’t miss your chance to save on admission to what is poised to be the go-to-meeting for all disciplines involved in the prevention, diagnosis, and treatment of sports concussion. Visit AAN.com/view/ConcussionConference to learn more and to secure your spot today. •
Whether it’s your patients’ first step or their next,  
POWERED FOR RESULTS  
Made for every day  

TECFIDERA is one pill, twice a day.¹

**Indication**  
Tecfidera® (dimethyl fumarate) is indicated for the treatment of patients with relapsing forms of multiple sclerosis.

**Important Safety Information**  
TECFIDERA is contraindicated in patients with known hypersensitivity to dimethyl fumarate or any of the excipients of TECFIDERA. TECFIDERA can cause anaphylaxis and angioedema after the first dose or at any time during treatment. Patients experiencing signs and symptoms of anaphylaxis and angioedema (which have included difficulty breathing, urticaria, and swelling of the throat and tongue) should discontinue TECFIDERA and seek immediate medical care.

Progressive multifocal leukoencephalopathy (PML) has occurred in patients with MS treated with TECFIDERA. PML is an opportunistic viral infection of the brain caused by the JC virus (JCV) that typically only occurs in patients who are immunocompromised, and that usually leads to death or severe disability. A fatal case of PML occurred in a patient who received TECFIDERA in a clinical trial. PML has also occurred in the postmarketing setting in the presence of lymphopenia (<0.8 x10⁹/L) persisting for more than 6 months. While the role of lymphopenia in these cases is uncertain, the majority of cases occurred in patients with lymphocyte counts <0.5x10⁹/L. The symptoms associated with PML are diverse, progress over days to weeks, and include progressive weakness on one side of the body or clumsiness of limbs, disturbance of vision, and changes in thinking, memory, and orientation leading to confusion and personality changes. At the first sign or symptom suggestive of PML, withhold TECFIDERA and perform an appropriate diagnostic evaluation. MRI findings may be apparent before clinical signs or symptoms. TECFIDERA may decrease lymphocyte counts; in clinical trials there was a mean decrease of ~30% in lymphocyte counts during the first year which then remained stable. Four weeks after stopping TECFIDERA, mean lymphocyte counts increased but not to baseline. Six percent of TECFIDERA patients and <1% of placebo patients had lymphocyte counts <0.5x10⁹/L. TECFIDERA has not been studied in patients with pre-existing low lymphocyte counts. There was no increased incidence of serious infections observed in patients with lymphocyte counts <0.8x10⁹/L or ≤0.5x10⁹/L in controlled trials, although one patient in an extension study developed PML in the setting of prolonged lymphopenia (lymphocyte counts predominantly <0.5x10⁹/L for 3.5 years). In controlled and uncontrolled clinical trials, 2% of patients experienced lymphocyte counts <0.5x10⁹/L for at least six months. In these patients, the majority of lymphocyte counts remained <0.5x10⁹/L with continued therapy. A complete blood count including lymphocyte count should be obtained before initiating treatment, 6 months after starting, every 6 to 12 months thereafter and as clinically indicated. Consider treatment interruption if lymphocyte counts <0.5x10⁹/L persist for more than six months and follow lymphocyte counts until lymphopenia is resolved. Consider withholding treatment in patients with serious infections until resolved. Decisions about whether or not to restart TECFIDERA should be based on clinical circumstances.

TECFIDERA may cause flushing (e.g. warmth, redness, itching, and/or burning sensation). 40% of patients taking TECFIDERA reported flushing, which was mostly mild to moderate in severity. Three percent of patients discontinued

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¹ For complete Prescribing Information, see Additional Important Safety Information.
With TECFIDERA, half as many patients relapsed in the 2-year DEFINE* trial†

TECFIDERA for flushing and <1% had serious flushing events that led to hospitalization. Taking TECFIDERA with food may reduce flushing. Alternatively, administration of non-enteric coated aspirin prior to dosing may reduce the incidence or severity of flushing.

TECFIDERA may cause gastrointestinal (GI) events [e.g., nausea, vomiting, diarrhea, abdominal pain, and dyspepsia]. Four percent of TECFIDERA patients and <1% of placebo patients discontinued due to GI events. The incidence of serious GI events was 1%. The most common adverse reactions associated with TECFIDERA versus placebo are flushing (40% vs 6%) and GI events: abdominal pain (18% vs 10%), diarrhea (14% vs 11%), nausea (12% vs 9%). Elevation in hepatic transaminases has been reported. A transient increase in mean eosinophil counts was seen during the first two months. TECFIDERA should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus. Encourage patients who become pregnant while taking TECFIDERA to enroll in the TECFIDERA pregnancy registry by calling 1-866-810-1462 or visiting www.TECFIDERApregnancyregistry.com.

For additional important safety information, please see adjacent Brief Summary of full Prescribing Information.

* Determination of the Efficacy and Safety of Oral Fumarate in Relapsing-Remitting MS, a 2-year, randomized, double-blind, placebo-controlled study in 1234 patients with relapsing-remitting multiple sclerosis (RRMS).†,‡

† Included patients who had experienced at least 1 relapse over the year preceding the trial or had a brain magnetic resonance imaging (MRI) scan demonstrating at least 1 gadolinium-enhancing (Gd⁺) lesion within 6 weeks of randomization and had an Expanded Disability Status Scale (EDSS) score ranging from 0 to 5.1

‡ Relapses were defined as new or recurrent neurologic symptoms not associated with fever or infection that lasted for at least 24 hours and were accompanied by new objective neurologic findings.2

Based on number of prescriptions from IMS NPA™ Weekly Data (September 27, 2013 to December 31, 2015).


For more information, visit TECFIDERAHCP.COM

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With TECFIDERA, half as many patients relapsed in the 2-year DEFINE* trial†

**PROPORTION OF PATIENTS RELAPSED‡**

<table>
<thead>
<tr>
<th>Time on Study [Weeks]</th>
<th>Proportion of Patients Relapsed</th>
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<tr>
<td>BL</td>
<td>PLACEBO 46%</td>
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<tr>
<td>12</td>
<td></td>
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<td>24</td>
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<td>84</td>
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<td>96</td>
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</table>

TECFIDERA 27%

| (n=408) | (n=410) |

$p<0.0001$

RELATIVE RISK REDUCTION†‡

TECFIDERA 27%

PLACEBO 46%

190K PATIENTS TREATED GLOBALLY

TECFIDERA has been prescribed in the US more than any other oral therapy for RMS

5+ YEARS OF CLINICAL AND REAL-WORLD EXPERIENCE

TECFIDERA is contraindicated in patients with known allergy to dimethyl fumarate

© 2016 Biogen. All rights reserved. 03/16 TEC-US-0808
Tecfidera® (dimethyl fumarate) delayed-release capsules, for oral use

Brief Summary of Full Prescribing Information

1 INDICATIONS AND USAGE

TECFIDERA is indicated for the treatment of patients with relapsing forms of multiple sclerosis.

2 DOSAGE AND ADMINISTRATION

2.1 Dosing Information

The starting dose for TECFIDERA is 120 mg twice a day orally. After 7 days, the dose should be increased to the maintenance dose of 240 mg twice a day orally. Temporary dose reductions to 120 mg twice a day may be considered for individuals who do not tolerate the maintenance dose. Within 4 weeks, the recommended dose of 240 mg twice a day should be resumed. Discontinuation of TECFIDERA should be considered for patients unable to tolerate return to the maintenance dose. The incidence of flushing may be reduced by administration of TECFIDERA with food. Alternatively, administration of non-enteric coated aspirin (up to a dose of 325 mg) 30 minutes prior to TECFIDERA dosing may reduce the incidence or severity of flushing [see Clinical Pharmacology (12.3)].

TECFIDERA should be swallowed whole and intact. TECFIDERA should not be crushed or chewed and the capsule contents should not be sprinkled on food. TECFIDERA can be taken with or without food.

2.2 Blood Test Prior to Initiation of Therapy

Obtain a complete blood cell count (CBC) including lymphocyte count before initiation of therapy [see Warnings and Precautions (5.3)].

3 DOSAGE FORMS AND STRENGTHS

TECFIDERA is available as hard gelatin delayed-release capsules containing 120 mg or 240 mg of dimethyl fumarate. The 120 mg capsules have a green cap and white body, printed with “BG-12 120 mg” in black ink on the body. The 240 mg capsules have a green cap and a green body, printed with “BG-12 240 mg” in black ink on the body.

4 CONTRAINDICATIONS

TECFIDERA is contraindicated in patients with known hypersensitivity to dimethyl fumarate or to any of the excipients of TECFIDERA. Reactions have included anaphylaxis and angioedema [see Warnings and Precautions (5.1)].

5 WARNINGS AND PRECAUTIONS

5.1 Anaphylaxis and Angioedema

TECFIDERA can cause anaphylaxis and angioedema after the first dose or at any time during treatment. Signs and symptoms have included difficulty breathing, urticaria, and swelling of the throat and tongue. Patients should be instructed to discontinue TECFIDERA and seek immediate medical care should they experience signs and symptoms of anaphylaxis or angioedema.

5.2 Progressive Multifocal Leukoencephalopathy

Progressive multifocal leukoencephalopathy (PML) has occurred in patients with MS treated with TECFIDERA. PML is an opportunistic viral infection of the brain caused by the JC virus (JCV) that typically only occurs in patients who are immunocompromised, and that usually leads to death or severe disability. A fatal course of PML occurred in a patient who received TECFIDERA for 4 years while enrolled in a clinical trial. During the clinical trial, the patient experienced prolonged lymphopenia (lymphocyte counts predominantly <0.5x10^9/L for 3.5 years) while taking TECFIDERA [see Warnings and Precautions (5.3)]. The patient had no other identifiable systemic medical conditions resulting in compromised immune system function and had not previously been treated with natalizumab, which has a known association with PML. The patient was also not taking any immunosuppressive or immunomodulatory medications concomitantly.

PML has also occurred in the postmarketing setting in the presence of lymphopenia (<0.8x10^9/L) persisting for more than 6 months. While the role of lymphopenia in these cases is uncertain, the majority of cases occurred in patients with lymphocyte counts <0.5x10^9/L.

At the first sign or symptom suggestive of PML, withhold TECFIDERA and perform an appropriate diagnostic evaluation. MRI findings may be apparent before clinical signs or symptoms. Typical symptoms associated with PML are diverse, progress over days to weeks, and include progressive weakness on one side of the body or clumsiness of limbs, disturbance of vision, and changes in thinking, memory, and orientation leading to confusion and personality changes.

5.3 Lymphopenia

TECFIDERA may decrease lymphocyte counts. In the MS placebo controlled trials, mean lymphocyte counts decreased by approximately 30% during the first year of treatment with TECFIDERA and then remained stable. Four weeks after stopping TECFIDERA, mean lymphocyte counts increased but did not return to baseline. Six percent (6%) of TECFIDERA patients and <1% of placebo patients experienced lymphocyte counts <0.5x10^9/L (lower limit of normal 0.91x10^9/L). The incidence of infections (60% vs 58%) and serious infections (2% vs 2%) was similar in patients treated with TECFIDERA or placebo, respectively. There was no increased incidence of serious infections observed in patients with lymphocyte counts <0.8x10^9/L, or ≤0.5x10^9/L in controlled trials, although one patient in an extension study developed PML in the setting of prolonged lymphopenia (lymphocyte counts predominantly <0.5x10^9/L for 3.5 years) [see Warnings and Precautions (5.2)]. In controlled and uncontrolled clinical trials, 2% of patients experienced lymphocyte counts <0.5x10^9/L for at least six months. In this group the majority of lymphocyte counts remained <0.5x10^9/L with continued therapy. TECFIDERA has not been studied in patients with pre-existing low lymphocyte counts.

Obtain a CBC, including lymphocyte count, before initiating treatment with TECFIDERA, 6 months after starting treatment, and then every 6 to 12 months thereafter, and as clinically indicated. Consider interruption of TECFIDERA in patients with lymphocyte counts less than 0.5x10^9/L persisting for more than six months. Given the potential for delayed recovery of lymphocyte counts, continue to obtain lymphocyte counts until their recovery if TECFIDERA is discontinued or interrupted due to lymphopenia. Consider withholding treatment from patients with serious infections until resolution. Decisions about whether or not to restart TECFIDERA should be individualized based on clinical circumstances.

5.4 Flushing

TECFIDERA may cause flushing (e.g., warmth, redness, itching, and/or burning sensation). In clinical trials, 40% of TECFIDERA treated patients experienced flushing. Flushing symptoms generally began soon after initiating TECFIDERA and usually improved or resolved over time. In the majority of patients who experienced flushing, it was mild or moderate in severity. Three percent (3%) of patients discontinued TECFIDERA for flushing and <1% had serious flushing symptoms that were not life-threatening but led to hospitalization. Administration of TECFIDERA with food may reduce the incidence of flushing. Alternatively, administration of non-enteric coated aspirin (up to a dose of 325 mg) 30 minutes prior to TECFIDERA dosing may reduce the incidence or severity of flushing [see Dosing and Administration (2.1) and Clinical Pharmacology (12.3)].

6 ADVERSE REACTIONS

The following important adverse reactions are described elsewhere in labeling: Anaphylaxis and Angioedema (5.1), Progressive multifocal leukoencephalopathy (5.2), Lymphopenia (5.3), Flushing (5.4) [see Warnings and Precautions].

6.1 Clinical Trials Experience

Because clinical trials are conducted under widely varying conditions, adverse reaction rates observed in clinical trials of a drug cannot be directly compared to rates in the clinical trials of another drug and may not reflect the rates observed in clinical practice. The most common adverse reactions (incidence ≥10% and ≥2% more than placebo) for TECFIDERA were flushing, abdominal pain, diarrhea, and nausea.

### Table 1: Adverse Reactions in Study 1 and 2 reported for TECFIDERA 240 mg BID at ≥2% higher incidence than placebo

<table>
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<tr>
<th>Adverse Reaction</th>
<th>TECFIDERA N=769</th>
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<tr>
<td>Abdominal pain</td>
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<td>10</td>
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<tr>
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<td>4</td>
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<tr>
<td>Rash</td>
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</tbody>
</table>
TECFIDERA caused GI events (e.g., nausea, vomiting, diarrhea, abdominal pain, and dyspepsia). The incidence of GI events was higher early in the course of treatment (primarily in month 1) and usually decreased over time in patients treated with TECFIDERA compared with placebo. Four percent (4%) of patients treated with TECFIDERA and less than 1% of placebo patients discontinued due to gastrointestinal events. The incidence of serious GI events was 1% in patients treated with TECFIDERA.

Hepatic Transaminases
An increased incidence of elevations of hepatic transaminases in patients treated with TECFIDERA was seen primarily during the first six months of treatment, and most patients with elevations had levels <3 times the upper limit of normal (ULN). Elevations of alanine aminotransferase and aspartate aminotransferase to ≥3 times the ULN occurred in a small number of patients treated with both TECFIDERA and placebo and were balanced between groups. There were no elevations in transaminases ≥3 times the ULN with concomitant elevations in total bilirubin >2 times the ULN. Discontinuations due to elevated hepatic transaminases were <1% and were similar in patients treated with TECFIDERA or placebo.

Eosinophilia
A transient increase in mean eosinophil counts was seen during the first 2 months of therapy.

Adverse Reactions in Placebo-Controlled and Uncontrolled Studies
In placebo-controlled and uncontrolled clinical studies, a total of 2513 patients have received TECFIDERA and been followed for periods up to 4 years with an overall exposure of 4603 person-years. Approximately 1162 patients have received more than 2 years of treatment with TECFIDERA. The adverse reaction profile of TECFIDERA in the uncontrolled clinical studies was consistent with the experience in the placebo-controlled clinical trials.

8 USE IN SPECIFIC POPULATIONS
8.1 Pregnancy
Pregnancy Category C
There are no adequate and well-controlled studies in pregnant women. In animals, adverse effects on offspring survival, growth, sexual maturation, and neurobehavioral function were observed when dimethyl fumarate (DMF) was administered during pregnancy and lactation at clinically relevant doses. TECFIDERA should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus.

In rats administered DMF orally (25, 100, 250 mg/kg/day) during organogenesis, embryofetal toxicity (reduced fetal body weight and delayed ossification) were observed at the highest dose tested. This dose also produced evidence of maternal toxicity (reduced body weight). Plasma exposure (AUC) for monomethyl fumarate (MMF), the major circulating metabolite, at the no-effect dose is approximately three times that in humans at the recommended human dose (RHD) of 480 mg/day. In rabbits administered DMF orally (25, 75, and 150 mg/kg/day) throughout organogenesis, embryofetal toxicity and decreased maternal body weight were observed at the highest dose tested. The plasma AUC for MMF at the no-effect dose is approximately 5 times that in humans at the RHD.

Oral administration of DMF (25, 100, and 250 mg/kg/day) to rats throughout organogenesis and lactation resulted in increased lethality, persistent reductions in body weight, delayed sexual maturation (male and female pups), and reduced testicular weight at the highest dose tested. Neurobehavioral impairment was observed at all doses. A no-effect dose for developmental toxicity was not identified. The lowest dose tested was associated with plasma AUC for MMF lower than that in humans at the RHD.

Pregnancy Registry
There is a pregnancy registry that monitors pregnancy outcomes in women exposed to TECFIDERA during pregnancy. Encourage patients to enroll by calling 1-866-810-1462 or visiting www.TECFIDERApregnancyregistry.com.

8.3 Nursing Mothers
It is not known whether this drug is excreted in human milk. Because many drugs are excreted in human milk, caution should be exercised when TECFIDERA is administered to a nursing woman.

8.4 Pediatric Use
Safety and effectiveness in pediatric patients have not been established.

8.5 Geriatric Use
Clinical studies of TECFIDERA did not include sufficient numbers of patients aged 65 and over to determine whether they respond differently from younger patients.

17 PATIENT COUNSELING INFORMATION
Advising the patient to read the FDA-approved patient labeling (Patient Information)

Dosage
Inform patients that they will be provided two strengths of TECFIDERA when starting treatment: 120 mg capsules for the 7 day starter dose and 240 mg capsules for the maintenance dose, both to be taken twice daily. Inform patients to swallow TECFIDERA capsules whole and intact. Inform patients not to crush, chew, or sprinkle capsule contents on food. Inform patients that TECFIDERA can be taken with or without food [see Dosage and Administration (2.1)].

Anaphylaxis and Angioedema
Inform patients that they may experience signs and symptoms of anaphylaxis or angioedema [see Warnings and Precautions (5.1)].

Progressive Multifocal Leukoencephalopathy
Inform patients that progressive multifocal leukoencephalopathy (PML) has occurred in patients who received TECFIDERA. Inform the patient that PML is characterized by a progression of deficits and usually leads to death or severe disability over weeks or months. Instruct the patient of the importance of contacting their doctor if they develop any symptoms suggestive of PML. Inform the patient that typical symptoms associated with PML are diverse, progress over days to weeks, and include progressive weakness on one side of the body or clumsiness of limbs, disturbance of vision, and changes in thinking, memory, and orientation leading to confusion and personality changes. [see Warnings and Precautions (5.2)].

Lymphocyte Counts
Inform patients that TECFIDERA may decrease lymphocyte counts. A blood test should be obtained before they start therapy. Blood tests are also recommended after 6 months of treatment, every 6 to 12 months thereafter, and as clinically indicated [see Warnings and Precautions (5.3), Adverse Reactions (6.1)].

Flushing and Gastrointestinal (GI) Reactions
Flushing and GI reactions (abdominal pain, diarrhea, and nausea) are the most common reactions, especially at the initiation of therapy, and may decrease over time. Advise patients to contact their healthcare provider if they experience persistent and/or severe flushing or GI reactions. Advise patients experiencing flushing that taking TECFIDERA with food or taking a non-enteric coated aspirin prior to taking TECFIDERA may help. [see Adverse Reactions (6.1)].

Pregnancy and Pregnancy Registry
Inform patients that if they are pregnant or plan to become pregnant while taking TECFIDERA with food or taking a non-enteric coated aspirin may help. [see Adverse Reactions (6.1)].

Pregnancy Registry
Instruct patients that if they are pregnant or plan to become pregnant while taking TECFIDERA they should inform their physician. Encourage patients to enroll in the TECFIDERA Pregnancy Registry if they become pregnant while taking TECFIDERA. Advise patients to call 1-866-810-1462 or visit www.TECFIDERAregistry.com for more information [see Use in Specific Populations (8.1)].

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Biogen
Cambridge, MA 02142

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2/2016
Successful Annual Meeting Dazzles with Innovative Programming, Impressive Vancouver Venue, Happy Attendees

Friday, April 15—Thursday, April 21
Vancouver, BC, Canada
Happy 50th, Dr. Rosenberg!

Former AAN President Roger N. Rosenberg, MD, FAAN (1991–1993) attended his 50th AAN Annual Meeting this year.

Rosenberg, as president elect, instigated conversations with then-President Louis P. Rowland, MD, FAAN, and board member Francis J. Kittredge, MD, FAAN, about the need for the AAN to launch a fundraising body to seed fellowships and research grants—the body that today is known as the American Brain Foundation.

Rosenberg has been impressed with the changes at this year’s meeting. “I think that having the plenary sessions every day with six speakers covering a broad spectrum of neurologic disease in depth is of great value as an educational approach and I think also being able to go in and out of all educational and scientific programs without a ticket or a pass for each one as in the past, that you’re free to move around and be kinetic and flexible, is good.”

Of those 50 Annual Meetings, the biggest highlight came quickly to Rosenberg. “The one that stands out was in 1992, when the Presidential Plenary lecture was given by Francis Crick on consciousness, I think it brought the molecular and contemporary neuroscience and computational bioinformatics to the bedside.”

2,800 Vancouver Area Residents Turn out for Fun, Informative Brain Health Fair

More than 2,800 Vancouver area patients, caregivers, families, and students took part in the fun and informative Brain Health Fair, where they learned about the wonders of the brain, new treatments for brain diseases, and the latest advancements in brain disease research. Important resources—including local and international neurologist experts—were on hand to offer advice on how to maintain healthy brains and answers to questions about a variety of brain diseases.

The 2016 Brain Health Fair Platinum Sponsor was Allergan; Gold Sponsors were Supernus Pharmaceuticals, Tourism Vancouver, Vancouver Hotel Destination Association, and Vancouver Convention Centre; and Silver Sponsors were Neurology Now®, Freeman, PSAV Presentation Services, and Centerplate.

For more information on the event, visit BrainHealthFair.com.

AAN’s Phelps Receives Award for Brain Health Fair

Christine E. Phelps, Deputy Executive Director, AAN Institute, recently received the Community Advocate of the Year Award from the PCMA Foundation for the concept and development of the Brain Health Fair. The Community Advocate Award honors a Professional Convention Management Association member in the business events industry who has developed and managed a unique and impactful program benefiting the community in which their meeting was held.

Stanley B. Prusiner, MD; AAN President Roger N. Rosenberg, MD, FAAN; Francis Crick, PhD; and William Oldendorf, MD, at the 1992 Annual Meeting in San Diego.
Conferences

Quotable Quotes from the 2016 Annual Meeting

What impressed attendees at the Annual Meeting? Check out this sampling of comments.

Why are you attending and what do you hope to gain by attending?

“Compared with other meetings, this one is the most useful for me for my research and for my practice. Also, after I attend this meeting, the other meetings seem almost the same. This one is just really complete. The Annual Meeting is very different because in this meeting I can increase my knowledge on every section. My fit is in dementia, but I can also learn about stroke, movement disorders, and more. This is very good for my practice because every type of patient comes to my clinic—not just dementia. It’s the diversity of topics here. I can learn about all the new clinical trials in every field in neurology.”

Fenny L. Yudiarto, MD, PhD
Active Corresponding Member
8th Annual Meeting

Why are you attending and what do you hope to gain by attending?

“I’m actually just transitioning from my fellowship training to my full faculty based career in neuro-oncology, and I’m hoping here to really get an opportunity to network with a lot of the people that I’ll be working with in the field, but then also to having this final opportunity to round off some of the basic approaches that people have taken to moving from this transition into the faculty position—rounding off some of those pearls and tips that may be useful for me in starting off a new career.”

Na Tosha N. Gatson, MD, PhD
Junior Fellow Member
8th Annual Meeting

Why did you choose to come to the AAN Annual Meeting, and what do you hope to gain by attending?

“I am a first-year graduate student doing research in neurology. I had a poster presentation yesterday. Because I’m at the lowest level here, I just want to be here to learn everything about neurology.”

Chaoran Ma
PhD Candidate Member
1st Annual Meeting

Why did you choose to present your research specifically at the AAN’s Annual Meeting?

“I have been introduced to a lot of good mentorship at the Annual Meetings—not only in stroke, but in other areas that directly contribute to the care of cerebrovascular disease. This is the premier place to present research in neurology because it brings people from all around the world, so a lot of great minds come to this conference. I haven’t seen this same opportunity at other conferences. It is very exciting, and this is the reason I’ve attended these conferences in the past during my residency and hope to continue to do the same going forward in my career.”

Saqib Chaudhry, MD
Junior Resident
4th Annual Meeting

What do you hope to get out of the meeting? What is your primary reason for attending?

“It helps me build my practice. I’m early—considered junior faculty—because I just started to practice less than two years ago, so one of the main reason for attending this year is for those courses that will help me start a chemodenervation clinic. And that was my main reason. Usually when I attend I have my own focus each year. I try and focus on something—because it’s huge and you can’t keep up with everything. So what I do each year is I have my own schedule and I have my own focus and this year it’s for botulinum toxin for neuromuscular procedures. It depends on what I’m looking at for my practice.”

Latifa Boukarrou, MD
Active Member
4th Annual Meeting

How does this meeting compare to other ones and what do you like best about the new format?

“I like the open format—the openness of the format—in the sense that you can do a variety of things at any point in time. A perfect example is that you can be attending more of an academic day, but break it up with an I Talk, which talks about how to do a good PowerPoint presentation. Or, you can break up your day, instead of doing just strictly intense science stuff and go over and just hear a quick talk about how to develop your career further. And I think that this is the first meeting in all my years that really paid specific attention to our younger members. I see so many younger members here—either residents or fellows—I was at the Resident and Fellow section last night, which was tremendous for me to see as a more senior member of the Academy.”

Anthony Alessi, MD, FAAN
Fellow (FAAN) Member
≈20th Annual Meeting
AAN, WFN Leaders Convene at Annual Meeting

Leaders from the AAN and World Federation of Neurology (WFN) met during the Annual Meeting. From left, Timothy A. Pedley, MD, FAAN, AAN Past President; William M. Carroll, MD, FRACP, FRCP(E), WFN Vice President; Ralph L. Sacco, MD, MS, FAHA, FAAN, AAN President Elect; Raad A. Shakir, MD, FRCP, FAAN, WFN President; Catherine M. Rydell, CAE, AAN Executive Director/CEO; Terrence L. Cascino, MD, FAAN, AAN President; Riadh Gouider, MD, WFN Trustee; Wolfgang Grisold, MD, WFN Secretary General; Steven L. Lewis, MD, FAAN, WFN Trustee.

Registration Opens This Month for 2016 AAN Fall Conference

and six Neurology Update programs), the Fall Conference offers more opportunity to tailor a personal schedule to your specific interests and needs.

New Topics

- Update in Stroke—offered in two 90-minute courses
- Half-day Headache Skills Workshop
- AAN Leadership University Course: Challenges of Leadership in Private Practice

Learn more and watch for registration to go live this month at AAN.com/view/fall. Early registration savings will end September 8, 2016. Save $100 or more when you register by this date.

Preliminary Program

Friday, October 14:

8:00 a.m.–9:30 a.m.
- NEW! Update in Stroke I
- Practice Management I: CPT Coding—A Case Based Approach

10:00 a.m.–11:30 a.m.
- NEW! Update in Stroke II
- Practice Management II: Business Strategies for the Small/Solo Practice

1:00 p.m.–2:30 p.m.
- Neurology Update I
- Practice Management III: A Detailed Look into Using Advanced Practice Providers
- Neurology Update II
- Practice Management IV: MIPS

Saturday, October 15

8:00 a.m.–9:30 a.m.
- Neurology Update III
- Practice Management V: Increase in Value Through HCC Codes/ICD-10-CM

10:00 a.m.–11:30 a.m.
- Neurology Update IV
- Practice Management VI: Understanding ACO Options/Making Sure Your Voice Is Heard

1:00 p.m.–5:00 p.m.
- Continuum® Test Your Knowledge: A Multiple Choice Question Review
- NEW! AAN Leadership University Course: TITLE TBD
- NEW! Headache Skills Workshop (Registration Required)

Sunday, October 16

7:30 a.m.–9:00 a.m.
- Neurology Update V

9:15 a.m.–10:45 a.m.
- Neurology Update VI

Did You Know It’s Now Easier than Ever to Register for the Fall Conference?

With an all-inclusive registration option that provides access to all education courses, there’s no need to select your courses in advance. Just register and show up to attend the courses of most interest to you!

New all-inclusive registration rates*:

- Student/Junior Member: $399
- Non-neurologist Member: $499
- Neurologist Member: $899
- Nonmember: $1,299

* Rates increase after the September 8 early registration deadline. Pre-registration and separate fee required for Headache Skills Workshop.

Continued from cover
The AAN thanks the following companies, foundations, and organizations for their demonstrated vision, commitment, and strong support of programs that find answers and improve lives through neurologic education and research. This list reflects commitments received as of April 22, 2016.
CMS Announces Proposed MACRA Changes to Medicare Reimbursement

In late April, the Centers for Medicare & Medicaid Services (CMS) released its 962-page proposed rule that links Medicare provider payments to quality patient care. This is the first major step taken by the government to implement the Medicare Access and CHIP Reauthorization Act of 2015, also known as MACRA. The MACRA law replaced the Medicare sustainable growth rate, commonly known as “SGR” or the “doc fix.” The law fundamentally changes how Medicare pays physicians and other clinicians who participate in the program.

“We are encouraged by the proposed changes that move from a highly prescriptive to a more flexible model,” said Orly Avitzur, MD, MBA, FAAN, chair of the Medical Economics and Management Committee. “This is especially evident in some of the quality and electronic health record components of the proposal. But the AAN is concerned with the impact this could have on small and solo practitioners. We also are mindful that the first performance year for the proposal begins in 2017. This does not leave us much time. The Academy’s staff continues to work hard educating members about the upcoming changes and we will submit comments to CMS that reflect the best interests of neurologists in order to influence the agency’s final rule.”

The proposed rule aims to link Medicare provider payments to quality patient care and creates a “Quality Payment Program” to replace old reporting programs. It includes a two-track system for Medicare reimbursement:

- **Merit-based Incentive Payment System (MIPS)**—consolidates components of the Physician Quality Reporting System (PQRS), the Value-based Payment Modifier (VM), and the Medicare Electronic Health Record (EHR) Incentive Program
- **Alternative payment model (APM)** track

CMS would begin measuring performance for doctors and other clinicians through MIPS in 2017, with payments based on those measures beginning in 2019. Because of the high bar set to qualify for the APM track, CMS projects that only 30,000 to 90,000 clinicians will be in the APM track. An estimated 687,000 to 746,000 physicians will be in MIPS including an estimated 13,000 neurologists according to CMS projections.

The proposed rule outlines four MIPS performance categories, each comprising a different percentage of an overall performance score in the first year of implementation:

- **Quality—50 percent of the score.** Clinicians would choose to report six measures from a range of options that accommodate differences among specialties and practices.
- **Advancing care information—25 percent of the score.** Major changes are coming to the Meaningful Use program, now called “advancing care information.” Eligible professionals will be able to choose to report customizable measures reflecting their use of technology in day-to-day practice with a focus on interoperability and information exchange. CMS emphasizes that, unlike current reporting program requirements, this category would not require all-or-nothing EHR measurement and the number of measures will be reduced from 18 to a new all-time low of 11. Furthermore, reporting of clinical decision support and computerized physician order entry will no longer be required and eligible professionals will only have to report to a single public health immunization registry. Some physicians will also be exempt from reporting when EHR technology is less applicable.
- **Clinical practice improvement activities—15 percent of the score.** This would reward activities like care coordination, beneficiary engagement, and patient safety.
- **Cost—10 percent of the score.** The score would be based on Medicare claims which means there are no reporting requirements for clinicians. This category would use 40 episode-specific measures to account for differences among specialties.

This score is used to determine how the provider is paid.

In the APM track, Medicare will provide bonus payments to doctors who participate in advanced alternative payment models. Models included in this category are those under which clinicians accept both risk and reward for providing coordinated, high-quality care. Examples cited in the proposed rule include the Comprehensive Primary Care Plus model and the Next Generation Accountable Care Organization model. Medicare physicians who participate to a sufficient extent in various APMs could be exempt from MIPS reporting requirements and qualify for financial bonuses.

The AAN is reviewing the proposed changes and will respond to CMS later this month, and CMS is expected to issue a final rule this fall.

To learn more about MACRA and how it will affect you, access the AAN’s tools and resources at AAN.com/view/MACRA. Bookmark this webpage and check back frequently as we will be updating this page as more resources are created. Or, if you have specific questions, contact MACRA@aan.com.

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New Videos Help Explain MACRA

Among the informational resources the AAN has created for members is a series of four short videos that answer commonly asked questions from neurologists about the changes coming with MACRA:

- Why Payment Reform? Why Now?
- MACRA 101: Your Future Payments Depend on It
- What Is the Merit-based Incentive Payment System (MIPS)?
- Alternative Payment Models: Moving Beyond Fee-for-service

To view the videos, visit https://goo.gl/ftSV0o.
Know Everything About Quality? This Webinar May Surprise You!

Neurologists strive for excellence, but this admirable principle is no longer sufficient. The science of quality improvement in practice is important not only for your patients, but with regulatory policies and reimbursement tied to quality and value, it is vital for your practice’s financial health.

**Get Better at Getting Better: A Neurology Guide to Quality Improvement**

**June 14, 2016, from 12:00 p.m. to 1:00 p.m.**

**Deadline to Register:** June 13

**Director:** Anup Patel, MD

- Understand why quality improvement is important
- Understand how quality initiatives are impacting medicine
- Identify the tools and methods for planning and implementing quality improvement projects

**Enjoy New Reduced 2016 Member Pricing!**

- AAN members pay only $99 per webinar (save $50 each from 2015 fee) or you can subscribe to the complete 2016 webinar series for only $189 (save $10 from 2015 subscription)
- New and convenient one-hour sessions

- If you have scheduling conflicts, registration gives you access for one year to the recorded webinar if you miss the live event
- Physicians will earn 1 AMA PRA Category 1 Credit™ per webinar and non-physicians will receive a certificate of completion
- Includes presentation slides and access to recording

To initiate a 2016 subscription, simply start registering for a single webinar and the option to subscribe to all 10 live webinars will be presented. The 2016 subscription offer does not include registration for webinars presented in 2015, which must be made in a separate transaction.

Visit [AAN.com/view/pmw16](http://AAN.com/view/pmw16) for more information or to register.

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Alzheimer’s, Parkinson Spotlighted in New *Neurology Now* and *Neurology: Clinical Practice*

Television journalist Maria Shriver is a passionate advocate for patients with Alzheimer’s disease, particularly women. She has an impressive list of Alzheimer’s-related projects—she produced the award-winning film “Still Alice,” wrote a children’s book called *What’s Happening to Grandpa*, testified on the disorder before Congress, and just launched a new fundraiser called Move for Mind. This month’s *Neurology Now* cover story chronicles her work as well as what she’s doing to lower her risks for the disease and what she learned from her experience with her father, Sargent, who died from Alzheimer’s.

Alzheimer’s is also the topic of the Waiting Room section, which looks at “memory cafés” that are popping up around the country as informal gathering places for people with Alzheimer’s and their caregivers. They allow people to relax, socialize, and compare notes without worrying about stares or feeling embarrassed, awkward, or self-conscious. Other topics include discussion of whether adult diseases such as MS, stroke, sleep apnea, and migraine are diagnosed and treated differently in children than in adults, and how the elderly and people with cognitive impairments are especially vulnerable to financial abuse, with advice on how to keep them safe and solvent.

*Neurology Now* is a free benefit for AAN members and their patients. AAN members may elect to receive multiple copies to distribute to their patients, who also can subscribe for free. Visit NeurologyNow.com to learn more or access your AAN member profile to adjust the number of copies you receive.

In *Neurology: Clinical Practice*, a diverse range of articles for practicing neurologists includes two on Parkinson disease: one examines patients’ perspectives on palliative care needs, and the other focuses on innovative approaches in caring for people with the disorder. Gaps in knowledge about the effective use of botulinum neurotoxins in clinical practice is another significant story.

*Neurology: Clinical Practice*, published six times a year, is available in print (for US members only), online, and for the iPad and Android. Visit Neurology.org/cp for more information.
Don’t let patients get lost in the noise of RMS

RMS = relapsing forms of multiple sclerosis.
QUIETING MS

for your patients with relapsing MS

*AUDAGIO is effective across key measures of disease activity: sustained disability progression (14 mg only), annualized relapse rate, and MRI activity. Overall discontinuation rates due to adverse events were 12.5% with AUDAGIO 14 mg, 11.2% with AUDAGIO 7 mg, and 7.5% with placebo, and treatment discontinuation rates due to common adverse events were ≤3.3% in the pooled clinical trials.1,2

MS=multiple sclerosis.

INDICATION
AUDAGIO® (teriflunomide) is indicated for the treatment of patients with relapsing forms of multiple sclerosis.

IMPORTANT SAFETY INFORMATION
WARNING: HEPATOTOXICITY AND RISK OF TERATOGENICITY
Severe liver injury including fatal liver failure has been reported in patients treated with leflunomide, which is indicated for rheumatoid arthritis. A similar risk would be expected for teriflunomide because recommended doses of teriflunomide and leflunomide result in a similar range of plasma concentrations of teriflunomide. AUDAGIO is contraindicated in patients with severe hepatic impairment and in patients taking leflunomide. Concomitant use of AUDAGIO with other potentially hepatotoxic drugs may increase the risk of severe liver injury. Obtain transaminase and bilirubin levels within 6 months before initiation of AUDAGIO therapy. Monitor ALT levels at least monthly for 6 months after starting AUDAGIO. If drug-induced liver injury is suspected, discontinue AUDAGIO and start an accelerated elimination procedure with cholestyramine or charcoal. Patients with pre-existing liver disease may be at increased risk of developing elevated serum transaminases when taking AUDAGIO.

Based on animal data, AUDAGIO may cause major birth defects if used during pregnancy. Pregnancy must be excluded before starting AUDAGIO. AUDAGIO is contraindicated in pregnant women or women of childbearing potential who are not using reliable contraception. Pregnancy must be avoided during AUDAGIO treatment or prior to the completion of an accelerated elimination procedure after AUDAGIO treatment.

Warnings and Precautions
Patients with pre-existing acute or chronic liver disease, or those with serum ALT >2 times the upper limit of normal (ULN) before initiating treatment, should not normally be treated with AUDAGIO. In clinical trials, if ALT elevation was >3 times the ULN on 2 consecutive tests, patients discontinued AUDAGIO and underwent accelerated elimination. Consider additional monitoring if co-administering AUDAGIO with other potentially hepatotoxic drugs; monitor patients who develop symptoms suggestive of hepatic dysfunction (eg, unexplained nausea, vomiting, abdominal pain, fatigue, anorexia, or jaundice and/or dark urine). Before starting therapy, use of reliable contraception must be confirmed, and the patient counseled on risks to the fetus. Patients with delayed onset of menses or other reason to suspect pregnancy should immediately see their physician for pregnancy testing. Patients who become pregnant while taking AUDAGIO may enroll in the AUDAGIO pregnancy registry by calling 1-800-745-4447, option 2.

Teriflunomide is eliminated slowly from the plasma—it takes an average of 8 months, or up to 2 years, to reach plasma concentrations <0.02 mcg/mL. Elimination may be accelerated by administration of cholestyramine or charcoal, but this may cause disease activity to return in patients who were responding to AUDAGIO.

Decreases in white blood cell counts, mainly of neutrophils and lymphocytes, and platelets have been
AUBAGIO® (teriflunomide) was proven again and again to reduce key measures of disease activity: sustained disability progression (14 mg only), annualized relapse rate, and MRI activity

- AUBAGIO 14 mg is the only oral RMS therapy with 2 pivotal Phase III trials that show a significant reduction in the risk of sustained disability accumulation.4

  - AUBAGIO 7 mg did not demonstrate a significant reduction in risk of sustained disability progression in either trial.1

- Sustained disability progression was defined as at least a 1-point increase from baseline Expanded Disability Status Scale (EDSS) score ≤5.5 (or at least a 0.5-point increase for those with a baseline EDSS score >5.5) sustained for at least 12 weeks.1

- AUBAGIO has demonstrated a consistent safety profile across 4 separate trials in 2047 patients.1

- One daily tablet that can be taken with or without food.1

- Health care professionals should run certain tests before prescribing AUBAGIO and should monitor patient liver enzyme levels monthly for the first 6 months.1

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**Temso:** A double-blind, placebo-controlled trial in patients with relapsing forms of MS (N=1088). Patients were randomized to receive AUBAGIO 14 mg (n=359), AUBAGIO 7 mg (n=366), or placebo (n=363) once daily for 108 weeks.1

**Tower:** A double-blind, placebo-controlled trial in patients with relapsing forms of MS (N=1169). Patients were randomized to receive AUBAGIO 14 mg (n=372), AUBAGIO 7 mg (n=408), or placebo (n=389) once daily with results for up to 40 months of treatment.1

**Topic:** A double-blind, placebo-controlled clinical trial in patients with relapsing MS (N=618). Patients were randomized to receive AUBAGIO 14 mg (n=216), AUBAGIO 7 mg (n=205), or placebo (n=197) once daily for 108 weeks. Patients had a first clinical event consistent with acute demyelination occurring within 90 days of randomization with 2 or more T2 lesions at least 3 mm in diameter characteristic of MS.1

**Study 4:** A randomized, double-blind, placebo-controlled trial in patients with relapsing forms of MS (N=179). Patients were randomized to receive AUBAGIO 14 mg (n=57), AUBAGIO 7 mg (n=61), or placebo (n=61) once daily for 36 weeks.1

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**Adverse Reactions:** The most frequent adverse reactions (≥10% and ≥2% greater than placebo) with AUBAGIO 7 mg and 14 mg and placebo, respectively, were headache (18% and 16% vs 15%), ALT increased (13% and 15% vs 9%), diarrhea (13% and 14% vs 8%), alopecia (10% and 13% vs 5%), and nausea (8% and 11% vs 7%).

**Drug Interactions:** Monitor patients when teriflunomide is coadministered with warfarin, or with drugs metabolized by CYP1A2, CYP2C8, substrates of OAT3 transporters, substrates of BCRP, or OATP1B1/1B3 transporters.

**Use in Specific Populations:** AUBAGIO is detected in human semen. To minimize any possible fetal risk, men not wishing to father a child and their female partners should use reliable contraception. Men wishing to father a child should discontinue therapy and undergo accelerated elimination, with verification of plasma concentrations <0.02 mcg/mL. Nursing mothers should not use AUBAGIO.

Please see Brief Summary of Full Prescribing Information, including boxed WARNING regarding hepatotoxicity and use in pregnancy, on the following pages.
AUBAGIO® (teriflunomide) and MS One to One® may help your patients manage their RMS

Getting started: the AUBAGIO Start form is both a prescription for AUBAGIO and enrollment for support offered by MS One to One

Please see Important Safety Information on previous pages and Brief Summary of Full Prescribing Information, including boxed WARNING regarding hepatotoxicity and use in pregnancy, on the following pages.


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AUBAGIO® (teriflunomide) tablets, for oral use

Brief Summary of Prescribing Information

WARNING: HEPATOTOXICITY AND RISK OF TERATOGENICITY

Hepatotoxicity
Severe liver injury including fatal liver failure has been reported in patients treated with leflunomide, which is indicated for rheumatoid arthritis. A similar risk would be expected for teriflunomide because recommended doses of teriflunomide and leflunomide result in a similar range of plasma concentrations of teriflunomide. Concomitant use of AUBAGIO with other potentially hepatotoxic drugs may increase the risk of hepatic injury. Obtain transaminase and bilirubin levels within 6 months before initiation of AUBAGIO therapy. Monitor ALT levels at least monthly for six months after starting AUBAGIO [see Warnings and Precautions (5.1)]. If drug induced liver injury is suspected, discontinue AUBAGIO and start an accelerated elimination procedure with cholestyramine or charcoal [see Warnings and Precautions (5.3)]. AUBAGIO is contraindicated in patients with severe hepatic impairment [see Contraindications (4.1)]. Patients with pre-existing liver disease may be at increased risk of developing elevated serum transaminases when taking AUBAGIO.

Risk of Teratogenicity
Based on animal data, AUBAGIO may cause major birth defects if used during pregnancy. Pregnancy must be excluded before starting AUBAGIO. AUBAGIO is contraindicated in pregnant women or women of childbearing potential who are not using reliable contraception. Pregnancy must be avoided during treatment with AUBAGIO or for 5 months after completion of the accelerated elimination procedure after AUBAGIO treatment [see Contraindications (4.2), Warnings and Precautions (5.2), and Use in Specific Populations (8.1)].

1 INDICATIONS AND USAGE
AUBAGIO® is indicated for the treatment of patients with relapsing forms of multiple sclerosis.

2 DOSAGE AND ADMINISTRATION
The recommended dose of AUBAGIO is 7 mg or 14 mg orally once daily. AUBAGIO can be taken with or without food.

Monitoring to assess safely
• Obtain transaminase and bilirubin levels within 6 months before initiation of AUBAGIO therapy. Monitor ALT levels at least monthly for six months after starting AUBAGIO [see Warnings and Precautions (5.1)].
• Obtain a complete blood cell count (CBC) within 6 months before the initiation of treatment with AUBAGIO. Further monitoring should be based on signs and symptoms of infection [see Warnings and Precautions (5.4)].
• Prior to initiating AUBAGIO, screen patients for latent tuberculosis infection with a tuberculin skin test or blood test for mycobacterium tuberculosis infection [see Warnings and Precautions (5.4)].
• Check blood pressure before start of AUBAGIO treatment and periodically thereafter [see Warnings and Precautions (5.7)].

4 CONTRAINDICATIONS
4.1. Severe Hepatic Impairment
Patients with severe hepatic impairment [see Warnings and Precautions (5.1)].

4.2. Patients Who are Pregnant or Women of Childbearing Potential Not Using Reliable Contraception
AUBAGIO may cause fetal harm when administered to a pregnant woman. In animal studies, teriflunomide has been shown to be selectively teratogenic and embryolethal in multiple species when administered during pregnancy at doses less than those used clinically. Nonclinical studies indicate that the intended pharmacologic action of the drug is involved in the mechanism of developmental toxicity [see Use in Specific Populations (8.1)].

AUBAGIO is contraindicated in women who are pregnant or women of child bearing potential not using reliable contraception. If this drug is used during pregnancy, or if the patient becomes pregnant while taking this drug, the patient should be apprised of the potential hazard to a fetus. If pregnancy occurs while taking AUBAGIO and the drug is still being administered, the drug should be immediately discontinued and an accelerated elimination procedure should be initiated [see Warnings and Precautions (5.3)]. Under these conditions, the patient should be referred to an obstetrician/gynecologist, preferably experienced in reproductive toxicity, for further evaluation and counseling [see Warnings and Precautions (5.7), and Use in Specific Populations (8.1)].

4.3. Current treatment with leflunomide
Co-administration of teriflunomide with leflunomide is contraindicated.

5 WARNINGS AND PRECAUTIONS
5.1 Hepatotoxicity
Severe liver injury including fatal liver failure and dysfunction has been reported in some patients treated with leflunomide, which is indicated for rheumatoid arthritis. A similar risk would be expected for teriflunomide because recommended doses of teriflunomide and leflunomide result in a similar range of plasma concentrations of teriflunomide. Patients with pre-existing liver disease may be at increased risk of developing elevated serum transaminases when taking AUBAGIO. Patients with pre-existing acute or chronic liver disease, or those with serum alanine aminotransferase (ALT) greater than two times the upper limit of normal (ULN) before initiation treatment, should not normally be treated with AUBAGIO. AUBAGIO is contraindicated in patients with severe hepatic impairment [see Contraindications (4.1)].

In placebo-controlled trials, ALT greater than three times the ULN occurred in 61/104 (5.8%) and 62/102 (6.1%) of patients receiving AUBAGIO 7 mg and 14 mg, respectively, and 38/997 (3.8%) of patients receiving placebo, during the treatment period. These elevations occurred mostly within the first year of treatment. Half of the cases returned to normal without drug discontinuation. In clinical trials, if ALT elevation was greater than three times the ULN on two consecutive tests, AUBAGIO was discontinued and patients underwent an accelerated elimination procedure [see Warnings and Precautions (5.3)]. Of the patients who underwent discontinuation and accelerated elimination in controlled trials, half returned to normal or near normal values within 2 months. One patient in the controlled trials developed ALT 32 times the ULN and jaundice 5 months after initiation of AUBAGIO 14 mg treatment. The patient was hospitalized for 5 weeks and recovered after plasmapheresis and cholestyramine accelerated elimination procedure. AUBAGIO-induced liver injury in this patient could not be ruled out.

Obtain serum transaminase and bilirubin levels within 6 months before initiation of AUBAGIO therapy. Monitor ALT levels at least monthly for six months after starting AUBAGIO. Discontinue AUBAGIO if serum transaminase increase (greater than three times the ULN) is confirmed. Monitor serum transaminase and bilirubin on AUBAGIO therapy, particularly in patients who develop symptoms suggestive of hepatic dysfunction, such as uneasiness, nausea, vomiting, abdominal pain, fatigue, anorexia, or jaundice and/or dark urine. If liver injury is suspected to be AUBAGIO-induced, discontinue AUBAGIO and start an accelerated elimination procedure [see Warnings and Precautions (5.3)] and monitor liver function tests. If AUBAGIO-induced liver injury is unlikely because some other probable cause has been found, resumption of AUBAGIO therapy may be considered.

5.2 Use in Women of Childbearing Potential
There are no adequate and well-controlled studies evaluating AUBAGIO in pregnant women. However, based on animal studies, teriflunomide may increase the risk of teratogenic effects or fetal death when administered to a pregnant woman [see Contraindications (4.2)].

Women of childbearing potential must not be started on AUBAGIO until pregnancy is excluded and it has been confirmed that they are using reliable contraception. Before starting treatment with AUBAGIO, patients must be fully counseled on the potential for serious risk to the fetus. The patient must be advised that there is any delay in onset of menses or any reason to suspect pregnancy, they must notify their physician immediately for pregnancy testing and, if positive, consultation with a physician and patient must discuss the risk to the fetus. It is possible that rapidly lowering the plasma concentration of teriflunomide by instituting an accelerated elimination procedure may decrease the risk to the fetus from AUBAGIO [see Warnings and Precautions (5.3)].

Upon discontinuing AUBAGIO, it is recommended that all women of childbearing potential undergo an accelerated elimination procedure. Women receiving AUBAGIO treatment who wish to become pregnant must discontinue AUBAGIO and undergo an accelerated elimination procedure. Women with teriflunomide plasma concentrations less than 0.02 mg/L (0.02 mcg/mL). Human plasma concentrations of teriflunomide less than 0.02 mg/L (0.02 mcg/mL) are expected to have minimal risk [see Contraindications (4.2), Warnings and Precautions (5.3) and Use in Specific Populations (8.1)].

5.3 Procedure for Accelerated Elimination of Teriflunomide
Teriflunomide is eliminated slowly from the plasma. Without an accelerated elimination procedure, it takes on average 8 months to reach plasma concentrations less than 0.02 mg/L, although because of individual variations in drug clearance it may take as long as 2 years. An accelerated elimination procedure could be used at any time after discontinue of AUBAGIO. Elimination can be accelerated by either of the following procedures:
• Administration of cholestyramine 8 g every 8 hours for 11 days. If cholestyramine 8 g thrice a day is not well tolerated, cholestyramine 4 g three times a day can be used.
• Administration of 50 g oral activated charcoal powder every 12 hours for 11 days.

If either elimination procedure is poorly tolerated, treatment days do not need to be consecutive unless there is a need to lower teriflunomide plasma concentration rapidly.

At the end of 11 days, both regimens successfully accelerated teriflunomide elimination, leading to more than 98% decrease in teriflunomide plasma concentrations.

Use of the accelerated elimination procedure may potentially result in return of disease activity if the patient had been responding to AUBAGIO treatment.

5.4 Bone Marrow Effects/Immunosuppression Potential/Infections

White Blood Cell (WBC) count decrease
A mean decrease in white blood cell (WBC) count of approximately 15% (mainly neutrophils and lymphocytes) and in platelet count of approximately 10% was observed in placebo-controlled trials with 7 mg and 14 mg of AUBAGIO compared to baseline. The decrease in mean WBC count occurred during the first 6 weeks and WBC count remained low during treatment. In placebo-controlled studies, neutrophil count < 1.5x109/L was observed in 12% and 13% of patients receiving AUBAGIO 7 mg and 14 mg, respectively, compared with 7% of patients receiving placebo; lymphocyte count <0.8x109/L was observed in 10% and 12% of patients
increase the risk for peripheral neuropathy (patients) and 1.9% (17 patients) of patients receiving 7 mg and 14 mg of AUBAGIO, patients taking AUBAGIO than in patients taking placebo. The incidence of and mononeuropathy (e.g., carpal tunnel syndrome), occurred more frequently in cies and lymphoproliferative disorders was reported in the AUBAGIO clinical trials, the use of some immunosuppressive medications. There is a potential for immu-
tuberculin skin test or with a blood test for mycobacterium tuberculosis infection. which, in addition to rheumatoid disease, may predispose patients to infection. In in the full prescribing information]

5.6 Skin Reactions

Rare cases of Stevens-Johnson syndrome and toxic epidermal necrolysis have been reported in patients with rheumatoid arthritis receiving leflunomide. A similar risk could be expected for AUBAGIO [see Clinical Pharmacology (12.3) in the full prescribing information]. If a patient taking AUBAGIO develops any of these conditions, stop AUBAGIO therapy and perform an accelerated elimination procedure [see Warnings and Precautions (5.3)].

5.6 Skin Reactions

Rare cases of Stevens-Johnson syndrome and toxic epidermal necrolysis have been reported in patients with rheumatoid arthritis receiving leflunomide. A similar risk could be expected for AUBAGIO [see Clinical Pharmacology (12.3) in the full prescribing information]. If a patient taking AUBAGIO develops any of these conditions, stop AUBAGIO therapy and perform an accelerated elimination procedure [see Warnings and Precautions (5.3)].

5.7 Increased Blood Pressure

In placebo-controlled studies, the mean change from baseline to the end of study in systolic blood pressure was +2.3 mmHg and +2.7 mmHg for AUBAGIO 7 mg and 14 mg, respectively, and -0.6 mmHg for placebo. The change from baseline in diastolic blood pressure was +1.4 mmHg and +1.9 mmHg for AUBAGIO 7 mg and 14 mg, respectively, and -0.3 mmHg for placebo. Hypertension was an adverse reaction in 3.1% and 4.3% of patients treated with 7 mg or 14 mg of AUBAGIO compared with 1.8% for placebo. Check blood pressure before start of AUBAGIO treatment and periodically thereafter. Elevated blood pressure should be appropri-
ately managed during treatment with AUBAGIO.

5.8 Respiratory Effects

Intestinal lung disease and worsening of pre-existing intestinal lung disease have been reported with treatment with leflunomide. A similar risk would be expected for AUBAGIO [see Clinical Pharmacology (12.3) in the full prescribing information].

A similar risk would be expected for AUBAGIO (teriflunomide) tablets, for oral use.

Intestinal lung disease may be fatal. Intestinal lung disease may occur acutely at any time during therapy and has a variable clinical presentation. New onset or worsening pulmonary symptoms, such as cough and dyspnea, with or without associated fever, may be a reason for discontinuation of the therapy and for further investigation as appropriate. If discontinuation of the drug is necessary, consider initiation of an accelerated elimination procedure [see Warnings and Precautions (5.3)].

5.9 Concomitant Use with Immunosuppressive or Immunomodulating Therapies

Co-administration with antineoplastic, or immunosuppressive therapies used for treatment of multiple sclerosis has not been evaluated. Safety studies in which AUBAGIO was concomitantly administered with other immune modulating therapies for up to one year (interferon beta, glatiramer acetate) did not reveal any specific safety concerns. The long term safety of these combinations in the treatment of multiple sclerosis has not been established.

In any situation in which the decision is made to switch from AUBAGIO to another agent with a known potential for hematologic suppression, it would be prudent to monitor for hematologic toxicity, because there will be overlap of systemic exposure to both compounds. Use of an accelerated elimination procedure may decrease this risk, but may also potentially result in return of disease activity if the patient had been responding to AUBAGIO treatment [see Warnings and Precautions (5.3)].

6 ADVERSE REACTIONS

The following serious adverse reactions are described elsewhere in the prescribing information:

- Hepatotoxicity [see Contraindications (4.1) and Warnings and Precautions (5.3)]
- Bone Marrow Effects/Immunosuppression Potential/Infections [see Warnings and Precautions (5.4)]
- Peripheral Neuropathy [see Warnings and Precautions (5.5)]
- Skin Reactions [see Warnings and Precautions (5.7)]
- Respiratory Effects [see Warnings and Precautions (5.8)]

6.1 Clinical Trials Experience

Because clinical trials are conducted under widely varying conditions, adverse reaction rates observed in the clinical trials of a drug cannot be directly compared to rates in the clinical trials of another drug and may not reflect the rates observed in clinical practice.

A total of 2047 patients receiving AUBAGIO (7 mg or 14 mg once daily) constituted the safety population in the pooled analysis of placebo controlled studies in patients with relapsing forms of multiple sclerosis; of these, 71% were female. The average age was 37 years.

Table 1 lists adverse reactions in placebo-controlled trials with rates that were at least 2% for AUBAGIO patients and also at least 2% above the rate in placebo patients. The most common were headache, an increase in ALT, diarrhea, alopia, and nausea. The adverse reaction most commonly associated with discontinuation was an increase in ALT (3.3%, 2.6%, and 2.3% of all patients in the AUBAGIO 7 mg, AUBAGIO 14 mg, and placebo treatment arms, respectively).

Table 1. Adverse Reactions in Pooled Placebo-Controlled Studies in Patients with Relapsing Forms of Multiple Sclerosis

<table>
<thead>
<tr>
<th>Adverse Reaction</th>
<th>AUBAGIO 7 mg (N=1045)</th>
<th>AUBAGIO 14 mg (N=1002)</th>
<th>Placebo (N=997)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Headache</td>
<td>18%</td>
<td>16%</td>
<td>15%</td>
</tr>
<tr>
<td>Increase in Alanine transaminase</td>
<td>13%</td>
<td>15%</td>
<td>9%</td>
</tr>
<tr>
<td>Diarrhea</td>
<td>13%</td>
<td>14%</td>
<td>8%</td>
</tr>
<tr>
<td>Alopecia</td>
<td>10%</td>
<td>13%</td>
<td>5%</td>
</tr>
<tr>
<td>Nausea</td>
<td>8%</td>
<td>11%</td>
<td>7%</td>
</tr>
<tr>
<td>Paresthesia</td>
<td>8%</td>
<td>9%</td>
<td>7%</td>
</tr>
<tr>
<td>Arthralgia</td>
<td>8%</td>
<td>6%</td>
<td>5%</td>
</tr>
<tr>
<td>Neutropenia</td>
<td>4%</td>
<td>6%</td>
<td>2%</td>
</tr>
<tr>
<td>Hypertension</td>
<td>5%</td>
<td>3%</td>
<td>2%</td>
</tr>
</tbody>
</table>

Cardiovascular deaths

Four cardiovascular deaths, including three sudden deaths, and one myocardial infarction in a patient with a history of hyperlipidemia and hypertension were reported among approximately 2600 patients exposed to AUBAGIO in the premar-
ting database. These cardiovascular deaths occurred during uncontrolled exten-
sion studies, one to nine years after initiation of treatment. A relationship between AUBAGIO and cardiovascular death has not been established.

5.7 Increased Blood Pressure

In placebo-controlled studies, the mean change from baseline to the end of study in systolic blood pressure was +2.3 mmHg and +2.7 mmHg for AUBAGIO 7 mg and 14 mg, respectively, and -0.6 mmHg for placebo. The change from baseline in diastolic blood pressure was +1.4 mmHg and +1.9 mmHg for AUBAGIO 7 mg and 14 mg, respectively, and -0.3 mmHg for placebo. Hypertension was an adverse reaction in 3.1% and 4.3% of patients treated with 7 mg or 14 mg of AUBAGIO compared with 1.8% for placebo. Check blood pressure before start of AUBAGIO treatment and periodically thereafter. Elevated blood pressure should be appropri-
ately managed during treatment with AUBAGIO.

5.8 Respiratory Effects

Intestinal lung disease and worsening of pre-existing intestinal lung disease have been reported with treatment with leflunomide. A similar risk would be expected for AUBAGIO [see Clinical Pharmacology (12.3) in the full prescribing information].
patients; 4% of AUBAGIO-treated patients had hypophosphatemia with serum phosphorus levels at least 0.3 mmol/L but less than 0.6 mmol/L, compared to 0.8% of placebo-treated patients. No patient in any treatment group had a serum phosphorus below 0.3 mmol/L.

7 DRUG INTERACTIONS

Effect of AUBAGIO on CYP2C8 substrates

Teriflunomide is an inhibitor of CYP2C8 in vivo. In patients taking AUBAGIO, exposure of drugs metabolized by CYP2C8 (e.g., paclitaxel, pioglitazone, repaglinide, rosiglitazone) may be increased. Monitor these patients and adjust the dose of the co-administered drug(s) as required [see Clinical Pharmacology (12.3) in the full prescribing information].

Effect of AUBAGIO on warfarin

Co-administration of AUBAGIO with warfarin requires close monitoring of the international normalized ratio (INR) because AUBAGIO may decrease peak INR by approximately 25%.

Effect of AUBAGIO on oral contraceptives

AUBAGIO may increase the systemic exposures of ethinylestradiol and levonorgestrel. Consideration should be given to the type or dose of contraceptives used in combination with AUBAGIO [see Clinical Pharmacology (12.3) in the full prescribing information].

Effect of AUBAGIO on CYP1A2 substrates

Teriflunomide may be a weak inducer of CYP1A2 in vivo. In patients taking AUBAGIO, plasma exposures of drugs which are OAT3 substrates (e.g., cefaclor, cimetidine, ciprofloxacin, penicillin G, ketoprofen, furosemide, methotrexate, zidovudine) may be increased. Monitor these patients and adjust the dose of the concomitant drug(s) as required [see Clinical Pharmacology (12.3) in the full prescribing information].

Effect of AUBAGIO on organic anion transporter 3 (OAT3) substrates

Teriflunomide inhibits the activity of OAT3 substrates (e.g., fucoidan, metformin, olanzapine) in renal impairment. There is no experience regarding teriflunomide overdose or intoxication in humans. Teriflunomide 70 mg daily up to 14 days was well tolerated by healthy subjects. In the event of clinically significant overdose or toxicity, cholestyramine or activated charcoal is recommended to accelerate elimination [see Warnings and Precautions (5.3)].

8 USE IN SPECIFIC POPULATIONS

8.1 Pregnancy

Pregnancy Category X [see Contraindications (4.2) and Warnings and Precautions (5.2)].

When teriflunomide (oral doses of 1, 3, or 10 mg/kg/day) was administered to pregnant rats throughout the period of organogenesis, high incidences of fetal malformations (primarily craniofacial, and axial and appendicular skeletal defects) and embryofetal death were observed at doses not associated with maternal toxicity. Adverse effects on embryofetal development were observed following dosing at various stages throughout organogenesis. Maternal plasma exposure at the no-effect level (1.0 mg/kg/day) for embryofetal developmental toxicity in rats was less than that in humans at the maximum recommended human dose (MRHD, 14 mg /day). Administration of teriflunomide (oral doses of 1, 3, or 12 mg/kg/day) to pregnant rabbits throughout organogenesis resulted in high incidences of fetal malformation (primarily craniofacial, and axial and appendicular skeletal defects) and embryofetal death at doses associated with minimal maternal toxicity. Maternal plasma exposure at the no-effect dose (1.0 mg/kg/day) for embryofetal developmental toxicity in rabbits was less than that in humans at the MRHD. In studies in which teriflunomide (oral doses of 0.05, 0.1, 0.3, 0.6, or 1.0 mg/kg/day) was administered to rats during gestation and lactation, decreased growth, eye and skin abnormalities, and high incidences of malformations (limb defects) and postnatal death were observed in the offspring at doses not associated with maternal toxicity. Maternal plasma exposure at the no-effect dose for pre- and postnatal developmental toxicity in rats (0.10 mg/kg/day) was less than that in humans at the MRHD.

In animal reproduction studies of leflunomide, embryolethality and teratogenic effects were observed in pregnant rat and rabbit at or below clinically relevant plasma teriflunomide exposures (AUC). In published reproduction studies in pregnant mice, leflunomide was embryolethical and increased the incidence of malformations (craniofacial, axial skeletal, heart and great vessel). Supplementation with exogenous uridine reduced the teratogenic effects in pregnant mice, suggesting that the mode of action (inhibition of mitochondrial enzyme dihydroorotate dehydrogenase) is the same for therapeutic efficacy and developmental toxicity. At recommended doses in humans, teriflunomide and leflunomide result in a similar range of plasma concentrations of teriflunomide.

Use in Males

AUBAGIO is detected in human semen. Animal studies to specifically evaluate the risk of male-mediated fetal toxicity have not been conducted. To minimize any possible risk, men not wishing to father a child and their female partners should use reliable contraception. Men wishing to father a child should discontinue use of AUBAGIO and undergo an accelerated elimination procedure to decrease the plasma concentration of teriflunomide to less than 0.02 mg/L (0.02 mcg/mL) [see Warnings and Precautions (5.3)].

8.3 Nursing Mothers

Teriflunomide was detected in rat milk following a single oral dose of teriflunomide. It is not known whether this drug is excreted in human milk. Because many drugs are excreted in human milk and because of the potential for serious adverse reactions in nursing infants from AUBAGIO a decision should be made whether to discontinue nursing or to discontinue the drug, taking into account the importance of the drug to the mother.

8.4 Pediatric Use

Safety and effectiveness in pediatric patients have not been established.

8.5 Geriatric Use

Clinical studies of AUBAGIO did not include patients over 65 years old.

8.6 Hepatic Impairment

No dosage adjustment is necessary for patients with mild and moderate hepatic impairment. The pharmacokinetics of teriflunomide in severe hepatic impairment have not been evaluated. AUBAGIO is contraindicated in patients with severe hepatic impairment [see Contraindications (4.1) Warnings and Precautions (5.1), and Clinical Pharmacology (12.3) in the full prescribing information].

8.7 Renal Impairment

No dosage adjustment is necessary for patients with mild, moderate, and severe renal impairment [see Clinical Pharmacology (12.3) in the full prescribing information].

10 OVERDOSAGE

There is no experience regarding teriflunomide overdose or intoxication in humans. Teriflunomide 70 mg daily up to 14 days was well tolerated by healthy subjects.

In patients taking AUBAGIO, plasma concentrations of teriflunomide to less than 0.02 mg/L (0.02 mcg/mL) [see Warnings and Precautions (5.3)].

Genzyme Corporation

500 Kendall Street

Cambridge, MA 02142

A SANOFI COMPANY

October 2014a

TER-BPLR-SA-OCT14 Revised: October 2014a
Parkinson’s Disease Quality Measurement Set Is Updated

The AAN Parkinson’s Disease Update Quality Measurement Set is now available online. An executive summary was published online in Neurology® on May 11, 2016, and it will appear in the June 14, 2016, print issue. The measurement set was originally released in 2009, and this revision includes greater specificity to updated measures. Four new measures were created, including measures addressing Avoidance of Dopamine Blocking Medications, Falls Outcomes, Counseling About Regular Exercise Regimen, and Advance Care Planning. Three measures were retired. Resources are available to help you implement these measures in your practice, including a two-page clinician summary and brief audio summary. Visit AAN.com/practice/quality-measures to learn more.

New Grant Will Help Increase Number of Medical Students Going into Neurology  
Continued from page 3

This grant will help the AAN:

- Determine factors that lead medical students to choose neurology as a career; we will survey medical school programs, study the issues, and examine high-performing programs and learn their tactics
- Develop engaging multimedia resources to inspire medical students to maintain interest in neurology as a field
- Expand and enhance the AAN’s Student Interest Group in Neurology (SIGN) program, which provides opportunities to participate in clinical, research, and service activities in neurology at more than 150 chapters in US and Canadian medical schools

Along with Dr. A. Gordon Smith, now our Education Committee chair, President Elect Dr. Ralph L. Sacco is driving this initiative and shared these comments. “We are thrilled to receive this three-year grant from the Conrad N. Hilton Foundation to help jump-start our new AAN initiatives to expand the neurology workforce pipeline. There are dire predictions of the expanding shortage of neurologists who will be readily accessible to care for our aging populations. Despite all of the exciting advances in our field to intervene, treat, and prevent neurological diseases, the proportion of medical students choosing a neurological career has remained disappointingly low. The AAN has taken up the challenge and is designing some really innovative programs and invigorating others, such as the SIGN program, to excite more students to enter the field of neurology. I look forward to working with the AAN Education Committee and subcommittees to make this one of my strategic priorities during my presidency.”

The AAN received strong letters of endorsement from our colleagues at the Alzheimer’s Association, the American Brain Foundation, the American Heart Association/American Stroke Association, the National Multiple Sclerosis Society, and the Foundation for Peripheral Neuropathy. I’d like to thank them for their support.

And I hope you will join me in thanking the Conrad N. Hilton Foundation for their forward-thinking generosity. We will update you on our progress over the next three years as we work toward successfully meeting our ambitious goal.

Terrence L. Cascino, MD, FAAN  
President, American Academy of Neurology  
tcascino@aan.com
Jones Named Palatucci Advocate of the Year

AAN Board of Directors member Elaine C. Jones, MD, FAAN, received the 2015 Palatucci Advocate of the Year Award at the Palatucci Advocacy Leadership Forum last month.

Jones was selected in recognition of her outstanding accomplishments in bringing neurologic care to patients in Haiti, and her numerous leadership roles in the AAN and her community. The award is given to a Palatucci Advocacy Leadership Forum graduate who has demonstrated passion for patient advocacy, an individual who has risen above his or her peers, had success or progress on his or her advocacy goals, and has displayed proven confidence with the media.

Jones has exceeded these criteria and is a tireless advocate for her patients and neurology. The award recipient is chosen by the Grassroots Advocacy and Member Outreach Committee of the Government Relations Committee.

“I am truly honored to receive the 2015 Palatucci Advocate of the Year Award,” said Jones. “I think back to my experience at the inaugural AAN PALF training in 2002 where I learned an amazing set of skills. I learned about action planning, political advocacy, and media skills. Little did I know the dramatic influence this would have on my personal and professional life; from influencing the direction of health care in the US to influencing the care of neurological patients in Haiti. Not only did my PALF skills help me in my work in Haiti, but it was at PALF that I met Dr. Tony Alessi, who brought this important opportunity into my world. I like to remind everyone that my initial PALF project was, and still is, a miserable failure. I planned to combine the two neurological societies in Rhode Island. We still have two separate societies more than 10 years later. But one of the most important things I have learned on this journey is that success isn’t always measured by the outcome. Jumping in and opening yourself up to opportunities is what really matters and PALF provides the skills, the resources, and the relationships to make change happen.”

To learn more about the Palatucci Advocacy Leadership program, visit AAN.com/public-policy/palatucci-advocacy-leadership-forum.

Capitol Hill Report

AAN Senior Legislative Counsel Mike Amery attended a retreat with the Main Street Republican Partnership (RMSP) in northeast Florida. The partnership includes more than 70 House Republicans and a few members of the Senate who are considered to be on the moderate side of the political spectrum. The AAN supports RMSP with a contribution from the AAN’s political action committee, BrainPAC. The AAN also supports a similar Democratic “Blue Dog” Coalition.

This year’s retreat was led by House Energy & Commerce Committee Chair Fred Upton (R-MI) and was attended by 25 RMSP members. Amery’s goal was to talk to each one about the Furthering Access to Stroke Telemedicine (FAST Act), HR 2799, which would improve patient access to neurologists via telemedicine for individuals suffering from stroke. There are now 89 congressional cosponsors of the FAST Act, including several from the Main Street group.

Amery followed up the Main Street event by presenting grand rounds on advocacy at the Mayo Clinic in Jacksonville. “It was a great group of about 50, including many residents. We talked about the efforts AAN is making on influencing federal and state health care policy, the issues we are working on, and how AAN members can get involved. A special thanks to Neurology Department Chair James Meschia, MD, and W. David Freeman, MD, graduate of the AAN’s Palatucci Advocacy Leadership Forum, for the invitation!”

Capitol Hill Report presents timely updates on legislative and regulatory actions and how the Academy ensures that the voice of neurology is heard on Capitol Hill. Read more at AAN.com/view/HillReport.
Congratulations to the 2016 Faculty and Trainee Award Winners!

**AB Baker Teacher Recognition Award**
Acknowledges excellent teacher recognition for contributions to improving neurology now and in the future.
- Brian Callaghan, MD / University of Michigan Health System
- Chad Carlson, MD / Froedtert & Medical College of Wisconsin
- William P. Cheshire, Jr., MD, FAAN / Mayo Clinic, Florida
- Pue Farooque, DO / Yale University
- Kelly D. Flemming, MD / Mayo Clinic, Rochester
- Yuebing Li, MD, PhD / Cleveland Clinic
- Robert W. Neel, MD / University of Cincinnati Hospital
- Yu-Tze Ng, MD, FRACP, FAAN / Baylor College of Medicine/The Children's Hospital of San Antonio
- Carlos A. Fardo-Villamizar, MD / Johns Hopkins University
- Adam Quick, MD / The Ohio State University
- Matthew S. Robbins, MD / Montefiore Medical Center
- Robert Thompson-Stone, MD / University of Rochester
- William A. Tosches, MD, FAAN / Greater Milford Neurology

**Clerkship Coordinator Award**
Acknowledges the essential function of neurology clerkship coordinators in medical student education.
- Caroline Diez, BA / Medical University of South Carolina
- Tammy Fowler / University of Texas Health Science Center San Antonio

**Clerkship Director Innovation Award**
Acknowledges innovation and creativity in neurology clerkship directors.
- Diane H. Solomon, MD / University of Texas Health Science Center San Antonio

**Clerkship Director Teaching Award**
Acknowledges the educational efforts of neurology clerkship directors.
- Cara E. Harth, MD, FAAN / Stony Brook University Hospital

**Program Coordinator Recognition Award**
Acknowledges the essential function of neurology program coordinators.
- Julie Campbell, C-TAGME / Nationwide Children's Hospital
- Mary E. Phelan, BS, C-TAGME / SUNY Upstate Medical University

**Program Director Recognition Award**
Acknowledges outstanding neurology program directors.
- John J. Doyle, MD / University of Pittsburgh
- Timothy E. Lotze, MD / Texas Children's Hospital

**Medical Student Scholarship to the Annual Meeting**
Provides $1,000 scholarship to the Annual Meeting to a Student Interest Group in Neurology (SIGN) member.
- 40 recipients received the 2016 scholarship.

**Enhanced Resident Leadership Program**
Supported by: Lundbeck LLC and The Allergan Foundation

**Resident and Fellow Scholarships**
Supported by: Lilly; Sanofi Genzyme; SAGE Therapeutics; Supernus Pharmaceuticals; and Upsher-Smith Laboratories

**Fellow Scholarship**
Recognizes and rewards fellows who are AAN members interested in active involvement in the AAN.
- 65 recipients received the 2016 scholarship.

**Resident Scholarship to the Annual Meeting**
Recognizes the importance of resident attendance at the AAN Annual Meeting. In order to receive the scholarship, residents had to be nominated by their program director.
- 134 recipients received the 2016 scholarship.
Multiple sclerosis topics such as severe, highly active, or aggressive MS, pregnancy in the setting of MS, and switching or discontinuing disease-modifying therapies, and many more are covered in the latest issue of *Continuum: Lifelong Learning in Neurology*. Participants can earn up to 14 hours of AMA PRA Category 1 Credit™ (12 of which apply to MOC Self-Assessment credit).

“Multiple sclerosis and related demyelinating disorders is a rapidly evolving field, with new insights into pathogenesis and clinical course, numerous emerging treatment strategies, and increasingly comprehensive goals of care,” said Guest Editor Stephen C. Krieger, MD, of the Icahn School of Medicine at Mount Sinai in New York, NY. “The articles in this issue of Continuum provide a thorough, contemporary, and thought-provoking review of the current approach to these dynamic areas.”

Articles include:

- New Approaches to the Diagnosis, Clinical Course, and Goals of Therapy in Multiple Sclerosis and Related Disorders, by Stephen C. Krieger, MD
- Incidental Lesions Suggesting Multiple Sclerosis, by Darin T. Okuda, MD, FAAN, FANA
- Early Relapsing Multiple Sclerosis, by David E. Jones, MD
- Severe, Highly Active, or Aggressive Multiple Sclerosis, by Mark S. Freedman, MSc, MD, FAAN, FRCPC; Carolina A. Rush, MD, FAAN
- Progressive Multiple Sclerosis, by Mary Alissa Willis, MD; Robert J. Fox, MD, FAAN
- Acute Multiple Sclerosis Relapse, by Regina Radner Berkovich, MD, PhD
- Symptom Management and Lifestyle Modifications in Multiple Sclerosis, by Patricia K. Coyle, MD, FAAN
- Pregnancy in the Setting of Multiple Sclerosis, by Michelle Fabian, MD
- Switching or Discontinuing Disease-Modifying Therapies for Multiple Sclerosis, by Aaron E. Miller, MD, FAAN
- Neuromyelitis Optica Spectrum Disorders, by Ilana Katz Sand, MD
- Pediatric Demyelination, by Sona Narula, MD; Brenda Banwell, MD
- Genetic Leukoencephalopathies in Adults, by Adeline Vanderver, MD
- Palliative Care in Multiple Sclerosis, by Ludo J. Vanopdenbosch, MD, FAAN; David J. Oliver, BSc, MBBS, FRCF, FRCGP; Joseph S. Kass, MD, JD, FAAN
- Health Literacy and Outcomes in Multiple Sclerosis, by Lily Jung Henson, MD, MMM, FAAN
- Coding in Multiple Sclerosis and Demyelinating Disease, by Pearce J. Korb, MD; Augusto Miravalle, MD

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With so much excellent programming at this year’s Annual Meeting in Vancouver, you may not have gotten to all of your favorite sessions. Now you can see them from the comfort of your home or office with Annual Meeting On Demand.

With Annual Meeting On Demand you get access to more than 500 hours of presentations from the 2016 Annual Meeting education and INS programs, including the syllabi for more than 200 programs, and the ability to watch presenters’ slides while listening to fully synchronized audio—as if you were actually attending each session.

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- Integrated online CME testing (earn up to 147.5 AMA PRA Category 1 credits™)
- Complimentary hard drive to view presentations offline
- iPosters: online access to scientific posters presented at the Annual Meeting

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**Membership**

**Academy Publications Honored**

Once again, the AAN’s Neurology Now® and Neurology Today® garnered top editorial awards in the 2016 American Society of Healthcare Publication Editors (ASHPE) competition. The ASHPE competition draws nearly 3,000 entries each year and is judged by a panel of publishing professionals.

Neurology Now received the Silver Award in the Best Profile category for its profile of Walter Mondale, “A Leader Takes on Brain Disease,” published in the April/May 2015 issue. The patient education magazine’s For the Caregiver department was given a Bronze Award in the Best Regular Department category for its articles in the April/May, June/July, and October/November 2015 issues.

Neurology Today was honored with a Bronze Award in the Best News Coverage category for the article, “AAN’s Call for Repeal of MOC Part IV Awaits Action from Credentialing Board,” published in the April 2, 2015, issue.

AAN members receive these timely, informative—and highly regarded—publications as a free benefit of their membership. To review your many other benefits, visit AAN.com/membership/member-benefits.

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**Nominations Sought for Board Positions**

The AAN requests nominations for president elect, secretary, treasurer, and members of the Board of Directors for the upcoming two-year term of office. The role of president elect is a six-year commitment (two years each as president elect, president, and past president). The secretary, treasurer, and directors’ terms are renewable for two additional two-year terms, for a total of six years. Membership will vote on the proposed slate of officers at the 2017 Annual Meeting in Boston. Descriptions of the roles and responsibilities of these officers are available at aan.com/view/nominations.

Board of Director meeting dates and locations for the two-year term are:
- June 22–23, 2018 (Minneapolis)
- September 14–15, 2018 (Minneapolis)
- February 20–24, 2019 (location to be announced)

Submit your nomination now at AAN.com/view/nominations or contact Donna Honeyman at dhoneyman@aan.com or (612) 928-6055.

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**CME & MOC**

 thị trường nội y của bệnh nhân. Mỗi năm, hội đồng đạo đức và các cơ quan y tế đề xuất hơn 200 chương trình, và khả năng xem các buổi trình bày trực tuyến như thật—nếu bạn tham dự mỗi buổi. 

**Additional features include:**
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Industry Sponsors Help Support the AAN’s Programs and Events

The AAN has long recognized the value of partnering with industry on projects of common interest. Since 1994, the Industry Roundtable (IRT) of pharmaceutical, medical device, and imaging member companies has partnered with the AAN to share vision, intellect, and financial resources with the focus on improving the quality of patient care.

When seeking high-quality industry relationships and sponsorship, the AAN first determines if the relationship is mutually advantageous. “The AAN’s relationships with industry are really about give and take,” said Jonathan P. Hosey, MD, FAAN, physician liaison to the AAN’s IRT. The AAN receives a financial benefit that defrays the cost of programs and substantially enhances programming and activities. At the recent Annual Meeting in Vancouver, sponsoring organizations helped to support the costs of education programming and provided equipment for workshops. In turn, the sponsoring organizations benefited by showing themselves as supporters of neurology, with increased visibility.

More than $8 million revenue for the 2016 Annual Meeting was generated through the following industry relationships:

- Nearly 200 exhibiting organizations
- 53 companies advertising and/or supporting program activities and social events
- 21 companies with Industry Roundtable membership
- 18 companies supporting CME

Throughout the year, these organizations and companies continue to show their commitment to neurology by sponsoring the AAN’s regional conferences, leadership programs, and clinical research training scholarships.

Guidelines Ensure Ethics, Transparency

All AAN industry support is governed by policies that outline the guiding ethical principles for these relationships and address conflict of interest. The AAN’s Principles Governing Academy Relationships with External Sources of Support have been in place for over 10 years. The AAN is a member of the Council of Medical Specialties Societies and follows its Code for Interaction with Companies.

The AAN Meeting Management Committee, comprised of AAN leaders including Board members and committee chairs, carefully reviews and enforces all things related to specific sponsorships, including vetting new companies, and proposing, discussing, evaluating, and approving or rejecting new sponsorship ideas. “This year’s new sponsorship—the lighting of the Olympic Torch outside the Vancouver Convention Centre—had to first be proposed and evaluated by this important group of experienced leaders,” said Hosey. “And after careful consideration, it was determined that the sponsorship concept of symbolically lighting the torch for neurologic research—with its goals of improving quality of life and finding cures—was, indeed, a fitting opening for the meeting.”

Contractual agreements and guidelines monitor every transaction, with sanctions in place in the event the agreement is broken.

Additionally, the AAN tries to avoid industry sponsorships that may result in Sunshine Act reporting and is committed to clearly communicating whenever an AAN activity could result in a report.

Added Hosey, “The AAN’s relationships with industry are transparent, and communication with industry is done with mutual understanding and respect for each other’s values and shared commitment to patient care.”

2016 Brain Health Fair Platinum Sponsor
Allergan provided support for the Brain Health Fair’s outreach to the Vancouver public.
AAN Seeks Established Neurologist Members for New Transforming Leaders Program

Application Deadline: July 1

The many challenges in today’s health care environment create a special need for great leadership. The AAN is committed to helping its members expand their leadership potential to take their skills to the next level, in turn further advancing the profession of neurology and the growing needs of patients. That’s what the new AAN Transforming Leaders program is all about.

This elite, 10-month program is designed specifically to offer experienced AAN member neurologists, who are 10 or more years out of residency and have demonstrated effective leadership skills, an in-depth, one-of-a-kind leadership experience that will help them lead at the AAN, in daily life, and in the world of neurology.

Participants will:
- Define and enhance leadership skills
- Take advantage of networking opportunities with AAN Board and committee members
- Become better acquainted with AAN programs, services, roles, mission, and governance
- Participate in special one-on-one coaching sessions, monthly group calls, and four face-to-face retreats
- Be matched with a mentor who is a current or past member of the AAN Board of Directors

If you want to move your career to the next level and become a leader at the AAN and in the field of neurology, visit AAN.com/view/TransformingLeaders to learn more and apply by the July 1, 2016, application deadline.

Dates and Deadlines

**JUNE 2016**
- **JUNE 1**
  - Application Deadline: UCNS Fellowship Program Accreditation
    - UCNS.org/go/home
- **JUNE 14**
    - Register by June 13
    - AAN.com/view/pmw16
- **JUNE 14**
  - Early Registration Deadline: Sports Concussion Conference
    - Hilton Chicago
    - AAN.com/view/ConcussionConference

**JULY 2016**
- **JULY 1**
  - Application Deadline: Transforming Leaders Program
    - AAN.com/view/TransformingLeaders
- **JULY 8–10**
  - Sports Concussion Conference
    - Hilton Chicago
    - AAN.com/view/ConcussionConference
- **JULY 15**
  - Application Deadline: UCNS Autonomic Disorders Certification Examination
    - UCNS.org/go/subspecialty/autonomic/certification

**AUGUST 2016**
- **AUGUST 10**
  - Webinar: Grading on a Curve: Using Benchmarks to Improve Your Bottom Line
    - Register by August 9
    - AAN.com/view/pmw16
- **AUGUST 15**
  - Application Deadline: UCNS Neuroimaging Certification and Recertification Examinations
    - UCNS.org/go/subspecialty/neuroimaging/certification
Neurology CareerCenter

UCSF Fresno Stroke Neurologist Faculty Opportunity

The UCSF Fresno Medical Education Program and Central California Faculty Medical Group (CCFMG) are recruiting for Neurologists, with subspecialty interest in Alzheimer’s disease, Epilepsy, Multiple Sclerosis, Neuromuscular Disease, Parkinson’s disease, at the Assistant, Associate, or Clinical Professor rank.

The Division of Neurology, UCSF Fresno campus is rapidly expanding. The position includes participation in programmatic development of a new Neuroscience initiative on campus along with teaching both Internal Medicine and Psychiatry Residents and medical students. Applicants should be Board eligible or Board Certified in Neurology with significant experience or Fellowship training in the appropriate subspecialty. Academic appointment at UCSF and compensation are commensurate with applicant’s credentials. The program is based in Fresno, California, where residents enjoy a high standard of living combined with a low cost of living.

Neurovascular Neurologist at Northwestern Permanente, P.C., want every patient we see to receive the medical care they need to live long and thrive. When you join Northwestern Permanente, P.C., you'll have the opportunity to provide care that offers ample opportunity to pursue – and achieve – your personal and professional dreams. We invite you to consider this opportunity with our self-governed, physician-led, multi-specialty group of over 3,500 physicians, surgeons and clinicians who care for over 500,000 members throughout Oregon and Southwest Washington.

Fresno is the only major city in the country with close proximity to three national parks, including renowned Yosemite National Park. Please apply online at: https://aprecruit.ucsf.edu/apply/JPF00838. Visit our websites: www.universitymds.com; www.fresno.ucsf.edu; www.communitymedical.org. UC San Francisco seeks candidates whose experience, teaching, research, or community service has prepared them to contribute to our commitment to diversity and excellence. The University of California is an Equal Opportunity/Affirmative Action Employer. All qualified applicants will receive consideration for employment without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, disability, age or protected veteran status.

Neurology CareerCenter

Neurologist A highly regarded Neurology Practice in Northern New Jersey is seeking full time or part time sub specialty trained Neuroradiologists. The practice provides adult and pediatric Neurological care at a single office and single hospital, with multiple established sub specialties. We are seeking to expand existing and establish additional areas of expertise in the following fields: Multiple Sclerosis, Neuro-oncology, Dementia/cognitive disorders, Neuro-hospitalist, Chemonervenson for spasticity and headaches. Practice is physician owned and partnership track is offered. The practice is located in an affluent New York City suburban community with excellent lifestyle and school system. Email CV to hjimera@neurobergen.com; www.neurobergen.com

Maine Central Maine Medical Group is seeking a BE/BC neurologist to join an established adult neurology practice primarily associated with Central Maine Medical Center. A competitive salary and attractive benefits package are available. Contact Lisa Siwicki, CPH MC at (207) 890-7270. Visit our website at: http://nwp.kpphysiciancareers.com. For more information, call Shelonda at (800) 813-3763. No J1 opportunities. All qualified applicants will receive consideration for employment without regard to race, color, religion, sex, sexual orientation, gender identity, age, status as a protected veteran, among other things, or status as qualified individual with a disability.

Neurology CareerCenter

NeuroHospitalist Fellowship over a two year training period includes medical, dental, disability and life insurance, company funded/generous retirement plans; vacation, salutational and educational leave; and professional liability coverage. Physicians who are Board Certified are also eligible for Senior Physician and Shareholder standing after approximately three years with the group. To apply, please visit our Web site at: http://nvpmh.kpphysiciancareers.com.

Central Maine Medical Group is seeking a BE/BC Neurologist with right to decline, withdraw, or edit advertisements at its discretion. Every care is taken to avoid mistakes, but the responsibility for clerical or printer errors does not exceed the cost of the ad.

AAN® Classified Advertising

The AAN offers a complete package of print, online, and in-person recruitment advertising opportunities. Visit AAN.com/careers for all AAN options, rates, and deadlines.

Ad copy for the August 2016 print edition of AANews must be submitted by July 1, 2016. The same deadline applies to changes/cancellations.

The American Academy of Neurology reserves the right to decline, withdraw, or edit advertisements at its discretion. Every care is taken to avoid mistakes, but the responsibility for clerical or printer errors does not exceed the cost of the ad.
Those who are happiest, are those who do the most for others

—Booker T. Washington