Welcome
This last newsletter of the year provides the opportunity to look back on yet another successful year for the Neurosciences at Atlantic Health—with continued growth and with steady improvements in our outcomes—already among the best in the region. This year saw renewal of our Joint Commission Primary Stroke Center Certifications and American Heart Association Gold Plus Awards at both campuses, while Overlook joined Morristown as a Joint Commission certified Spine Center. Inside Jersey magazine and Castle Connolly ranked Overlook the state’s premier center for neurosciences in general, and stroke in particular, with Morristown ranked third for stroke and sixth for neurosciences. In 2009, Overlook was the busiest neuroscience service in the state.

In this issue, in addition to an update on our continually evolving epilepsy program, we highlight our successful implementation of our deep brain stimulator program for Parkinson’s disease, nicely complimenting our highly successful medical program for the management of movement disorders. Like our programs in epilepsy, cerebrovascular disease, brain tumors, pain management and spine this provides yet another example of the power of a unified multidisciplinary approach to these complex disorders of the nervous system.

I would be remiss if I did not end the year by expressing, on behalf of all of our patients, my heartfelt gratitude to our outstanding neuroscience nurses, our dedicated staff of allied health professionals, our superb medical staff, and all those referring physicians and centers who entrust us with the care of their patients. To all, our thanks and our hope and promise to continue to do everything we can to provide the best possible care to the region’s neuroscience patients.

John J. Halperin MD
Medical Director, Neurosciences
The Atlantic Neuroscience Institute

Epilepsy
Northeast Regional Epilepsy Group (NEREG) has been affiliated with Overlook Hospital since 2006, evaluating and treating hundreds of patients with seizures and epilepsy (epilepsy is defined as recurring, unprovoked seizures). In recent years physicians have become increasingly aware of patients’ potential for a seizure disorder, including seizures in their differential diagnosis far more frequently. This has resulted in steadily rising numbers of patients undergoing routine or video EEG (VEEG) monitoring at Overlook, increasing from 1,590 in 2008, to 2,388 in 2009, a 50 percent increase.

Launched in 1998, Northeast Regional Epilepsy Group (NEREG) is a multi-site practice in New Jersey, New York and Connecticut that offers state-of-the-art diagnostic procedures, 24/7 patient service, highly skilled and experienced practitioners, and exceptional specialty programs designed to cover a broad range of health care
needs in each epilepsy patient. NEREG consists of nine board-certified epilepsy specialists with fellowship training in adult and childhood epilepsy, as well as many other highly skilled health care providers including associated pediatric and adult epilepsy surgeons, neuropsychologists, epilepsy nurse practitioners, a specially trained nutritionist and epilepsy advocates.

Video-EEG (VEEG) is a diagnostic tool used to test for epilepsy. The test typically lasts for 3-5 days and requires a hospital admission. Increasingly, this assessment is being used for different patient populations who require timely treatment if found to have seizures. One such population consists of patients with a change in mental status or an observed seizure-like clinical episode while in a critical care unit. These patients undergo VEEG to detect subclinical seizures in order to begin treatment as soon as possible. Another group includes the elderly since epidemiological studies have shown an increase in the incidence of epilepsy with aging. Seniors with a history of strokes and head injuries are especially at risk. A third group of patients referred for VEEG monitoring are those presenting to the emergency room with episodes of loss of consciousness or syncope, first-time seizure-like episodes, a history of unexplained falls, or sudden bizarre behavior. Lastly, VEEG monitoring is used in patients with a known seizure disorder when there is a need to better understand their epilepsy or to make informed treatment changes, including epilepsy surgery.

In addition to the diagnostic procedures described above, NEREG offers a range of additional services to its patients including neuropsychological testing (i.e. testing intelligence, memory, language, attention, and so forth) and a memory treatment program. As memory deficits are the most frequently-measured cognitive impairments in epilepsy patients, NEREG offers its patients a six-week group program that focuses on learning about memory processes and providing training in use of compensatory strategies for improvement of memory functions in everyday life.

Last but not least, given NEREG’s philosophy that a well-informed patient is more likely to be successfully treated, educational programs are organized yearly for patients. A monthly support group for patients and loved ones, run by a psychologist and nurse practitioner, (third Friday of each month) includes invited professional speakers. Another major assistance to patients is provided through Epilepsy Life Links, the NEREG patient advocacy team; patients are assisted by epilepsy advocates (psychologists and nurses) to navigate the healthcare, school and work systems. And all year long, NEREG invites its patients to participate in numerous grass roots activities including epilepsy walks and social events.

Neurosurgical Milestone for ANI

On December 3, 2010, Dr. Edward Zampella successfully performed the first bilateral subthalamic nucleus (STN) deep brain stimulation (DBS) operation for a patient with Parkinson’s disease (PD) at Overlook Hospital. After a follow-up procedure to attach the neurostimulator, the patient will begin a programming regimen by

![Figure a: Schematic demonstrating path of the stimulating electrode, inserted into the subthalamic nucleus.](image1.png)  
![Figure b: Patient with bilaterally implanted electrodes and neurostimulators.](image2.png)
Dr. Roger Kurlan in the Movement Disorders Program. Dr. Adam Lipson performed a unilateral thalamic DBS operation for another patient with PD earlier this year. The ANI is pleased to be able to provide the multidisciplinary neurosurgical and neurological expertise needed for DBS surgery for patients with movement disorders. To refer patient to our DBS Program contact Dr. Kurlan at 908-522-6144, Dr. Zampella at 973-285-7800, or Dr. Lipson at 908-688-8800.

Certification in Pain Management
Certification in Pain Management began in 2005. At Atlantic Health’s Overlook Hospital, three RNs from the Pain Management Center—Rosemary Smith, RN, Joan Breznak, RN, and Joy Domingo, RN—have recently joined their ranks by achieving certification in this specialty.

Certified Pain Management Nurses are experts in pain assessment, treatment, side effects and patient education. Certification validates nurses’ knowledge, skills and improves quality of care and patient safety. Certification recognizes RNs competence and capabilities and distinguishes them in the specialty of pain management. It also assures patients that the Pain Management Center’s RNs meet standards of practice and have demonstrated a commitment to their profession and lifelong learning. For patients and families, certification validates that the nurse caring for them has demonstrated experience, knowledge and skills in pain management. The Pain Management Center distinguishes itself from other institutions and demonstrates to consumers that we have attracted the most skilled and experienced nursing professionals. Please join us in congratulating Rosie and Joanie on this significant achievement.

‘Paint Your Pain For Us’ Campaign
Overlook Hospital’s Pain Management Center Team knows how hard it is for people who suffer from back, neck, head or other serious pain to get others to understand their experience. The health care professionals at the Pain Center believe that patients as well as those affected by their loved one’s physical pain are best qualified to help educate others about their experience—namely, what it feels like to suffer the pain and what it feels like when it is gone.

To that end, the Center is hosting a teaching exhibition and is collecting works of art from patients and others that tells others about their pain experience—living with it, losing it, or both. Selected artwork will be exhibited at the Center as part of a long-term teaching display that will be used as a counseling and teaching tool. Entries must be submitted by Feb 15, 2011, and must be framed and properly wired for hanging. Contact rosemary.smith@atlantichealth.org for further information.
Support Groups

Alzheimer’s Support Group
Education and support for patients and their families.
Dates:
December 16th, January 27th, 7:00 pm.
Location:
Overlook Hospital, 5th (main) floor Neuroscience Community Conference Room (NCCR).
Contact:
amy.matthews@alznj.org or 973-586-4300 x113

Epilepsy Support Group
Support group for adults with epilepsy and their caretakers
Dates:
The 3rd Friday of every month, Noon-1pm
Location:
Overlook Hospital, 5th (main) floor Neuroscience Community Conference Room (NCCR).
Contact:
Call the NEREG office at 908-522-4990 or Dr. Myers: 212-661-7460 lmyers@epilepsygroup.org or Sue Seeger at susan.seeger@atlantichealth.org.

Hydrocephalus Support Group: Quarterly Meetings
Education and support for children and adults with Hydrocephalus and shunts
Dates:
Thursday December 2, 2010.
Location:
Morristown Memorial Hospital, Auditoruim B.
Contact:
973-326-9000

Neuropathy Support Group Monthly Meetings
Education and support for patients with neuropathy
Dates:
First Tuesday every month (1/4/11), 7:00-9:00 pm
Location:
Overlook Hospital, 5th (main) floor Neuroscience Community Conference Room (NCCR).

Pain support group
Provide support and education to persons with chronic pain and their families.
Dates:
First Monday every month (1/3/11), 5:30–7:00 pm.
Location:
Overlook Hospital, 5th (main) floor Neuroscience Community Conference Room (NCCR).
Contact:
Pat Hubert at 908-665-1988 or hubertpm@hotmail.com

New Research Studies

Alzheimer’s Disease
Dr. Papka is pleased to announce the initiation of a research program focused on clinical trials of Alzheimer’s Disease through the newly formed Cognitive Research Center of New Jersey (CRCNJ). The goal of this program is to provide experimental treatment options for patients diagnosed with Alzheimer’s disease. For her first trial, she is collaborating with Dr. Roger Kurlan, Dr. Michele Elkins, and Research Nurse Sandra Wrigley, and will seek additional collaborators for future trials.

We are actively recruiting patients through the end of November 2010 for a Phase II double-blind placebo controlled study of the efficacy, safety, and tolerability of ST101 in the treatment of Alzheimer’s patients concurrently receiving Aricept. To qualify for the study, patients need to be on a 10mg dose of Aricept for at least 90 days and not on Namenda. They must also have a caregiver who interacts with them daily and is willing to participate in the study.

Interested patients or physicians should call Dr. Michelle Papka at 908-322-5500. We appreciate the support, interest, collaboration, and referrals from colleagues.

Parkinson’s Disease
Dr. Roger Kurlan, Director, Movement Disorders Program at the Atlantic Neuroscience Institute, Overlook Hospital, will be conducting a research study entitled: Tai chi and Parkinson’s Disease: Pilot Study. The study is designed to determine whether Tai Chi may be effective in improving...
balance, reducing falls, and improving mood and quality of life of patients with Parkinson’s disease.

The study is open to adults 18 years and older who have Parkinson’s disease and have not participated in Tai Chi classes before. Tai Chi classes will consist of basic breathing techniques, warm up and flexibility exercises, standing exercises for balance, range of motion, flexibility and joint position sense. Patients who are not ambulatory, or have cognitive or motor impairment which would interfere with their ability to appropriately participate in Tai Chi activities would be excluded from participating in the study.

The study starts September 15. Weekly Tai Chi classes will be held at The Connection, in Summit every Wednesday from 2-3:15pm, and will run for four months. We have designed the study with a control group that will not participate in Tai Chi and will be followed for the same outcome measures. The study participants will continue their “standard care” and routine follow up visits to their doctor during the study.

For more information, please contact study coordinators: Sandy Wrigley at: 908-598-7991, or Roye Evans at: 908-522-6168.

**Restless Leg Syndrome**

Dr. Roger Kurlan, Director, Movement Disorders Program at the Atlantic Neuroscience Institute, Overlook Hospital, will be conducting a research study entitled: Safety and Efficacy of Rasagline for the Treatment of Restless Legs Syndrome (RLS). It is a multicenter, randomized, double-blind, placebo controlled, 12 week study. The inclusion criteria are as follows:

- Men and women 18 years or older, capable of providing informed consent
- Diagnosis of idiopathic RLS with moderate or severe symptoms
- Not currently receiving treatment for RLS

For more information please contact the study coordinator Sandy Wrigley at 908-598-7991.

**Grant Awards**

1. NIH RO1, titled, “The Neurogenic Potential of Cholinergic Activation in Alzheimer’s Disease.”
   This grant, which is in its second funding year, will determine whether cellular cytogenesis can be induced by muscarinic cholinergic agonists, and ultimately lead to an increase in the number of cholinergic neurons, neuronal recovery and improved cognition.

2. NIH RO1, titled, “The Role of ECE-2 in Regulating Abeta Levels in Alzheimer’s Disease.” This newly-awarded grant is designed to determine whether alterations in the activity of endothelin converting enzyme (ECE)-2 influence Alzheimer’s disease pathogenesis. The study will be performed in transgenic animal models and using biobanked human genetic samples in collaboration with the Mayo Clinic.

_Elizabeth A. Eckman, Ph.D. NIH Research Grants_
<table>
<thead>
<tr>
<th>PROTOCOL</th>
<th>Principle Investigator</th>
<th>Contact to Nominate Patients</th>
<th>Sponsor - Funding</th>
<th>Description</th>
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<tbody>
<tr>
<td>Tai Chi for Parkinson's Disease</td>
<td>Dr. Roger Kurlan</td>
<td>Sandy Wrigley 908-598-7991 or Roye Evans 908-522-6168</td>
<td>Grotta Fund for Senior Care of the Jewish Community Fund of Metro West NJ</td>
<td>Study to identify the impact an exercise program of Tai Chi may have on patients with Parkinson’s Disease, specifically related to balance, quality of life, mood and other features of PD</td>
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<td>Safety and Efficacy of Rasagiline in Restless Legs Syndrome (RLS)</td>
<td>Dr. Roger Kurlan</td>
<td>Sandy Wrigley 908-598-7991</td>
<td>University of Virginia and Teva Pharmaceuticals</td>
<td>Determine if Rasagiline improves RLS symptoms and is safe</td>
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<td>Lyme borreliosis and Multiple Sclerosis</td>
<td>Dr. John Halperin</td>
<td>Jennifer Grossman 908-522-3501</td>
<td>CDC</td>
<td>Obtain specimens and clinical information for a national Lyme borreliosis repository</td>
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<td>SWIFT</td>
<td>Dr. Paul Saphier</td>
<td>Dr. Paul Saphier 973-285-7800 <a href="mailto:psaphier@atlanticneurosurgical.com">psaphier@atlanticneurosurgical.com</a></td>
<td>Endovascular Inc.</td>
<td>Multicenter IDE, randomized prospective study on clot retrieval in acute ischemic stroke.</td>
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<td>Cordis Enterprise</td>
<td>Coils to treat wide-neck, intracranial, saccular or fusiform aneurisms.</td>
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<td>Endovascular Company</td>
<td>Onyx Liquid Embolic System to treat aneurisms not amenable to surgical clipping</td>
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