What is The Student Interest Group in Neurology?

The American Academy of Neurology is working to stimulate medical students’ interest in neurology. The AAN inaugurated the Student Interest Group in Neurology (SIGN) program in 1998, with the endorsement of the Association of University Professors of Neurology (AUPN) and the American Neurological Association (ANA). There are over 150 SIGN chapters at schools throughout the world.

The purpose of SIGN is to introduce medical students to the field of neurology by bringing them together with fellow students with similar interests through discussions by neurologists, patient presentations, seminars, journal clubs, learning materials, and arranged shadowings of neurologists in the workplace. Medical students become aware of opportunities, and participate in activities, related to the field of neurology, including opportunities for research, creating a new generation of neurologists and AAN members.

The AAN supports SIGN chapters by supplying $400 per year to use for food, copying, and other miscellaneous expenses to U.S. and Canadian SIGN chapters. SIGN members are also eligible to apply for the Medical Student Annual Meeting travel scholarship of $1,000 and the Medical Student Summer Research Scholarship of $3,000.

There are several SIGN discussions during the AAN Annual Meeting, where experts speak on career choices. Chapter representatives share their chapter’s activities with the group.

For more information, contact Maggie Rock and mrock@aan.com or (612) 928-6073.
Why join the Student Interest Group in Neurology?

Free SIGN membership will enable you to:

- Socialize with students, residents, and faculty at your institution who share your interest in neurology.
- Shadow neurologists.
- Find a mentor.
- Attend patient presentations and seminars.
- Attend the AAN Annual Meeting as a SIGN representative
- Develop experience, leadership and valuable contacts
- Apply for SIGN scholarships:
  - $3,000 Summer Research Scholarship
  - $1,000 Annual Meeting Scholarship
- PLUS, each SIGN chapter in the U.S. and Canada receives $400 a year in expense reimbursement.
Starting a SIGN Chapter

1. Choose a faculty advisor who has the time, energy and enthusiasm to support and guide the group.
2. Submit the completed registration form via the SIGN webpage on AAN.com.
3. Elect officers and begin the process of organizing the group, choosing and planning activities, inviting speakers, locating additional funding, etc. Each chapter may raise additional funds as necessary.
4. Maintain regular contact with officers.
5. Develop a list of goals and activities.
6. Plan regular meetings of officers and the entire SIGN chapter.
7. Advertise the benefits of SIGN membership and AAN membership.
Running a SIGN Chapter

Every school has different goals for their SIGN chapter and should run their chapter the way it best suits that school’s students, environment, and schedule, using the chapter bylaws as a guideline.

1. Publicize planned events well in advance via email, the campus newspaper, bulletin boards, class announcements, webpage, etc., to encourage attendance. Send reminders.
2. Provide refreshments and keep your receipts.
3. Submit your expense reimbursement form and receipts to the AAN following each event. The funds do not carry over to the next year.
4. Each chapter may raise additional funds, as necessary.
5. Keep track of number of times the group meets, how many attended, what topic was discussed, and any new activity ideas and suggestions.
6. Maintain a record book that will contain all the details, forms, and contact information that next year's officers will need to assure a good transition and continuity.
7. Be sure to distribute to all SIGN members the information i.e. scholarship applications etc. that the AAN sends to you. AAN material is only sent to the faculty advisor and the chapter president, so you need to see that everyone interested is able to see the material.
8. Create and maintain a network of faculty, local neurologists, residents and medical students interested in SIGN by hosting social events.
9. Recruit new members by marketing the SIGN chapter activities to new students.
10. Elect and train the chapter president for the coming year to ensure continuity.
11. Work as a team: encourage members’ participation and delegate duties.
12. Work as a leader: draw out quiet people; keep everyone organized and on schedule.
13. Spread your enthusiasm; acknowledge and praise the work that members do. Write thank you notes.
14. Keep everyone informed, pre- and post-meeting; notify the AAN of officer and advisor changes.
15. Most importantly, relax and have fun with people who share your interest in neurology.
16. Invite an individual involved in research to attend one meeting per year to present opportunities in a research career.
Chapter President’s “To Do” List

1. Keep track of expenses incurred and save receipts. Every US and Canadian chapter is entitled to $400 every academic year. To receive your chapter’s reimbursement funds, first submit a Budget Use Form via the SIGN webpage on AAN.com before the event or purchase. After approval you will need to email or surface mail an expense form (found on the SIGN webpage) as well as the receipts within 30 days of when the expense is incurred. Each chapter may raise additional funds, as necessary.

2. Be sure to distribute scholarship information to members. Specifically, the Annual Meeting Scholarship ($1,000) and Research Scholarship ($3,000).

3. Keep chapter information together to pass on to next year’s chapter president, along with marketing materials and helpful hints on how to run a successful chapter. This folder should also include activity ideas, web-links, and contact information.

4. Be sure to incorporate community service activities like charity walks or health fairs into your chapter’s activities.

5. Keep the AAN informed of change in officers and faculty advisor(s).

To request forms or other information contact Maggie Rock at mrock@aan.com or (612) 928-6073.
Scholarships Available to SIGN Members

Medical Student Scholarship to the Annual Meeting
The American Academy of Neurology (AAN) and the Association of University Professors of Neurology (AUPN) are working together to stimulate medical students' interest in neurology programs and are jointly offering a scholarship to fund medical students' attendance at the AAN Annual Meeting. Forty $1,000 scholarships are available to SIGN chapter presidents or a designated SIGN representative in the U.S. and Canada who are nominated by their Clerkship Director or SIGN Faculty Advisor.

Scholarships are awarded based on the following criteria:

- Applicants must be a member of the AAN; preference will be given to SIGN chapter leadership
- Application must include CV, letter of interest outlining SIGN leadership and activities
- Scholarship will be given to no more than one student per institution
- The department chair will provide a supplemental grant to the student so that all expenses can be covered.
- The student must attend the SIGN meeting at the AAN Annual Meeting in order to receive the scholarship. The award will be mailed to the student after the Annual Meeting.

If you have questions about this process or need SIGN Chapter application materials, please contact Cheryl Alementi at calementi@aan.com or (612) 928-6073.

Medical Student Summer Research Scholarship
The AAN's Undergraduate Education Subcommittee (UES) sponsors the Medical Student Summer Research Scholarship program. The scholarship program was established to stimulate students to pursue careers in neurology in either research or practice settings.

The scholarship program offers members of the AAN's Student Interest Group in Neurology (SIGN) program a summer stipend of $3,000 to conduct a project in either an institutional, clinical or laboratory setting where there are ongoing programs of research, service or training, or a private practice. Only applicants from U.S. or Canadian schools with established SIGN chapters are eligible to apply and applicants must be a member of the AAN.

The AAN will award up to 20 scholarships to medical students with little to no research experience and who have a supporting preceptor and a project with clearly defined goals. The project is to be conducted through a U.S. or Canadian institution of the student's choice and jointly designed by the student and sponsoring institution.

For application forms and guidelines or SIGN chapter registration materials, contact Cheryl Alementi at calementi@aan.com or (612) 928-6073.
Suggested SIGN Chapter Activities

This list is a compilation of some of the past activities of SIGN chapters. Feel free to choose the ideas that work for your chapter. If you have suggestions for unique group activities, please send them to Maggie Rock at mrock@aan.com and they will be added to this list to share with other chapters.

Speakers
Invite professors, neurologists in private practice, attendings and residents to speak to SIGN members.

Topics:
1. Neurology Overview
2. Lifestyle Issues: Why Become a Neurologist? or Life of a Neurology Resident
4. Different Practices: Urban, Rural, Teaching Hospital, Private Practice, etc.
5. Specific Groups: Residents, Women in Neurology, Minorities in Neurology, etc.
6. Case Presentations: Parkinson's, Stroke, Headache, etc.
7. Hands-On Skills Workshops: Neurology Exams, EEG, EMG, MRI, etc.
8. Create Interdisciplinary Expert Panels: Joint efforts between Neurology and Psychiatry, other specialties and subspecialties, using residents and faculty
9. Seminars on managing finances, the application process, interviewing, choosing a residency, fellowships, running a practice, research, technology (PDAs, etc.), time management or stress management
10. Research: Introduce students to opportunities in clinical and basic science neuroscience careers.

Hints:
- Make sure speakers are enthusiastic and entertaining.
- Encourage student participation whenever possible.
- Videos keep presentations interesting.
- Pizza always helps attract students to talks.
- Don't schedule near exam times.
- Advertise in as many ways as possible.
- Call all participants the night before the presentations to remind them about topics, places and times.
- Write thank you letters to the speakers.
- Keep lists of good speakers for future reference. Involve residents, fellows and faculty, as well as outside volunteers.
- Keep costs low by such methods as co-sponsoring talks: If you schedule a female neurologist to present, ask the American Medical Women's Association to co-sponsor and help with expenses.
- Host a wine/cheese reception or luncheon after Grand Rounds to get to know faculty.
- Use video clips of neurology patients.
Mentorships
Match students with an attending or resident mentor to shadow during the first and second years of medical school.

Hints:
- Host a luncheon or reception for each neurology rotation group to introduce them to SIGN
- Match students up with mentors in their area of interest whenever possible. Don’t place a student who is interested in adult neurology with a pediatric neurologist.
- Make sure mentor is enthusiastic and accessible.
- Encourage mentors to give demonstrations: EEG, EMG, etc.
- Encourage students to attend grand rounds and pathology brain cutting.
- Allow students to organize their own schedules.
- Let the student decide if he or she will come into the hospital weekly, monthly, bi-monthly, etc.
- Over or under scheduling time commitment will lead to disinterest.
- Encourage students to clearly define a schedule. This increases the likelihood of continued involvement.
- Write thank you letters to all mentors.
- Keep lists of good mentors for future reference.
- Schedule a "Dinner with the Professors" to acquaint students with faculty.
- Invite students to Department social events.

Field Trips
2. Tour a research facility or medical library
3. Watch neurosurgery in progress
4. Visit a Sleep Clinic and watch a sleep study
5. Visit museums and find neurology in art and sculpture
6. Watch a neuropathologist do brain sectioning
7. Attend movies/theater on neurology-related topics for discussion
8. Introduce neurology to children in K-12 classrooms with the Neuroscience in the Classroom activities provided on the AAN website
9. Arrange joint activities with a nearby SIGN chapter.
10. Tour a successful research lab

Create a “Neuro Survival Manual” for students taking their neurology rotation

Create a videotape for incoming neurology students on taking a neurologic history and performing a neurologic exam

Assemble Research and Employment Opportunities Lists
1. Identify available research positions and internships in neurology.
2. Apply for the SIGN Summer Research Scholarship.

Meeting Ideas:
- Play Brainstorm, Neurology Jeopardy, or other neurology-related games or contests.
- Sponsor a faculty tea or wine and cheese reception to interact with faculty and residents.
• Discussion group on neurology-related books and movies, such as “The Diving Bell and the Butterfly” or “Awakenings”.
• Hold reviews prior to exams

Sponsor an Orientation Fair Booth for New Students or Career Day Activities
Introduce first year students to neurology.

Create SIGN Marketing and Promotional Materials
1. Capturing first and second year students will ensure continuity of chapter activities.
2. Good advertising ensures good attendance.

Work with Pre-Med Students to Introduce Them to Neurology
1. Mentor pre-med students at SIGN activities and community service.

Create a Student-Run Information Website, List Serve, Newsletter or Bulletin Board for the Latest News in Neurology

Participate in Mental Health Awareness Week, Brain Awareness Week, or Charity Walks/Runs
Sponsor a child safety program in area grade schools, i.e., helmet safety.

Volunteer at a Free Clinic or VA Hospital or Other Community Service Opportunities

Lobby Local, State and Federal Lawmakers on Health Care Issues
You can work through the AAN Center for Health Policy (CHP) staff.

Lobby School Leadership on Neurology Rotations
You can influence whether your school has a required third year neurology clerkship.

Partner with other interest groups at your school in activities, i.e., Psychiatry Interest Group.

Journal Club
Ask the advisor to supervise a journal club for SIGN members.

Hints:
• Use broadly based review articles.
• Make sure to meet at convenient times.
• Supply food if possible.
• See if participants can receive elective credit.
• Load articles on chapter website.

Create a Book Exchange for Textbooks and Recreational Reading

Hold a Book Drive for a Third World Country in need of Textbooks

Sponsor a Program Describing the Match Process
Ask the advisor to supervise a program on the match process for SIGN members.
<table>
<thead>
<tr>
<th>Film Title</th>
<th>Year</th>
<th>Subject</th>
</tr>
</thead>
<tbody>
<tr>
<td>A Beautiful Mind</td>
<td>2001</td>
<td>Schizophrenia</td>
</tr>
<tr>
<td>A.I.: Artificial Intelligence</td>
<td>2001</td>
<td>Artificial intelligence, ethics</td>
</tr>
<tr>
<td>Afraid of Dark</td>
<td>1991</td>
<td>Vision, perception, neurodegenerative disease</td>
</tr>
<tr>
<td>Anastasia</td>
<td>1956</td>
<td>Amnesia</td>
</tr>
<tr>
<td>As Good As It Gets</td>
<td>1997</td>
<td>Obsessive-compulsive disorder, phobias</td>
</tr>
<tr>
<td>At First Sight</td>
<td>1996</td>
<td>Visual perception, surgery</td>
</tr>
<tr>
<td>Autism is a World</td>
<td>2005</td>
<td>Autism</td>
</tr>
<tr>
<td>Avatar</td>
<td>2009</td>
<td>Relation to nerve connections in the brain and consciousness</td>
</tr>
<tr>
<td>Awakenings</td>
<td>1990</td>
<td>Encephalitis, Parkinsonism, treatment of mental illness</td>
</tr>
<tr>
<td>Being There</td>
<td>1979</td>
<td>Mental Retardation</td>
</tr>
<tr>
<td>Benny and Joon</td>
<td>1993</td>
<td>Mental illness</td>
</tr>
<tr>
<td>Brainscan</td>
<td>1994</td>
<td>Memory, hypnosis, virtual reality</td>
</tr>
<tr>
<td>Brainstorm</td>
<td>1983</td>
<td>Memory, nervous system/technology, perception, ethics</td>
</tr>
<tr>
<td>Brain Damage</td>
<td>1988</td>
<td>Disembodied brain, addiction, neuropharmacology</td>
</tr>
<tr>
<td>Blade Runner</td>
<td>1982</td>
<td>Artificial intelligence, ethics</td>
</tr>
<tr>
<td>Charly</td>
<td>1968</td>
<td>Mental retardation, experimental brain surgery</td>
</tr>
<tr>
<td>Children of a Lesser God</td>
<td>1986</td>
<td>Deafness</td>
</tr>
<tr>
<td>Clean Slate</td>
<td>1994</td>
<td>Korsakoff's Syndrome, memory, brain injury</td>
</tr>
<tr>
<td>Coma</td>
<td>1978</td>
<td>Coma</td>
</tr>
<tr>
<td>Coming Home</td>
<td>1978</td>
<td>Spinal injury, recovery of function</td>
</tr>
<tr>
<td>Dark Victory</td>
<td>1939</td>
<td>Brain tumor, terminal illness, vision</td>
</tr>
<tr>
<td>Darkman</td>
<td>1990</td>
<td>Brain/spinal surgery</td>
</tr>
<tr>
<td>Dead Again</td>
<td>1991</td>
<td>Amnesia</td>
</tr>
<tr>
<td>Deep Blue Sea</td>
<td>1999</td>
<td>Alzheimer's Disease, genetics, neuropharmacology</td>
</tr>
<tr>
<td>eXistenZ</td>
<td>1999</td>
<td>Nervous system and technology, virtual reality, perception, implantation</td>
</tr>
<tr>
<td>Fearless</td>
<td>1993</td>
<td>Post-Traumatic Stress Disorder</td>
</tr>
<tr>
<td>Flatliners</td>
<td>1990</td>
<td>Death, clinical experimentation, ethics</td>
</tr>
<tr>
<td>Forrest Gump</td>
<td>1993</td>
<td>Mental Retardation</td>
</tr>
<tr>
<td>Garbo Talks</td>
<td>1984</td>
<td>Brain Tumors</td>
</tr>
<tr>
<td>Greystoke: The Legend of Tarzan</td>
<td>1984</td>
<td>Language, learning, nature/nurture</td>
</tr>
<tr>
<td>Lord of the Apes</td>
<td>1985</td>
<td>Mental Retardation</td>
</tr>
<tr>
<td>Heart of the Dragon</td>
<td>1993</td>
<td>Autism</td>
</tr>
<tr>
<td>House of Cards</td>
<td>1994</td>
<td>Deafness</td>
</tr>
<tr>
<td>Immortal Beloved</td>
<td>1990</td>
<td>Death and nervous system, psychopharmacology</td>
</tr>
<tr>
<td>Jacob’s Ladder</td>
<td>1942</td>
<td>Language, learning, nature/nurture</td>
</tr>
<tr>
<td>Jungle Book</td>
<td>1993</td>
<td>Nervous system and technology, artificial intelligence</td>
</tr>
<tr>
<td>Lawnmower Man</td>
<td>1998</td>
<td>Autism</td>
</tr>
<tr>
<td>Little Voice</td>
<td>1992</td>
<td>Nervous system, adrenoleukodystrophy</td>
</tr>
<tr>
<td>Lorenzo’s Oil</td>
<td>1984</td>
<td>Dissociation, psychogenic fugue</td>
</tr>
<tr>
<td>Marnie</td>
<td>1998</td>
<td>Autism</td>
</tr>
<tr>
<td>Mercury Rising</td>
<td>2000</td>
<td>Memory, anterograde amnesia</td>
</tr>
<tr>
<td>Memento</td>
<td>1994</td>
<td>Language, learning, nature/nurture</td>
</tr>
</tbody>
</table>
Mr. Holland’s Opus 1995 Deafness
Of Mine and Men 1992 Mental Retardation
One Flew Over the Cuckoo’s Nest 1975 Psychopathology, electroconvulsive treatment, ethics
Outbreak 1995 Neurodegenerative disease, ethics
Phenomenon 1996 Brain Tumors
Quest for Camelot 1998 Blindness
Quills 2000 18th century treatment of mental illness
Rainman 1988 Autistic savant
Re-animator 1985 Neuropharmacology, ethics
Regarding Henry 1991 Brain injury, recovery of function
Resident Evil 2002 Amnesia, artificial intelligence, genetics, ethics
Scent of a Woman 1992 Blindness
Sleepy Hollow 1999 Historic neuroscience
Sneakers 1992 Blindness
Spellbound 1945 Amnesia
Strange Days 1995 Memory, memory transfer, nervous system and technology, perception, imaging

The Boy Who Could Fly 1986 Autism
The Fisher King 1991 Schizophrenia, treatment
The Green Mile 1999 Brain tumor
The Horse Whisperer 1998 Post-Traumatic Stress Disorder
The Miracle Worker 1962 Deafness and Blindness
The Road to Wellville 1994 Neural stimulation, historic neuroscience, ethics
The Secret of NIMH 1982 Science and society, neuroscience methods
The Serpent and the Rainbow 1988 Neuropharmacology
The Terminal Man 1974 Brain surgery, neural stimulation, seizures
The Wild Child 1969 Language, learning, nature/nurture
The Wizard 1989 Autism
Tim 1979 Mental Retardation
Wait Until Dark 1967 Blindness
What’s Eating Gilbert Grape 1993 Mental Retardation
When the Whales Came 1989 Deafness
Who Am I? 1998 Amnesia
Creative Control 2016 Social cognition, perception, situated cognition
Chappie 2015 Philosophy of mind, evolution/animals, robotics
Concussion 2015 Clinical cases, neuroscience
DxM 2015 Philosophy of mind, neuroscience, evolution/animals
Ex Machina 2015 Philosophy of Mind, AI, Robotics, Social Cognition
Experimenter 2015 Psychology, social cognition
Inside Out 2015 Psychology, Philosophy of Mind, Memory, Perception
Self/less 2015 Memory, philosophy of mind, psychology
Stanford Prison Experiment, The 2015 Psychology, social cognition
Automata 2014 Robotics, Philosophy of mind, AI
Big Hero 6 2014 Robotics, AI, Social cognition
Imitation Game, The 2014 Intelligence, AI
Lucy 2014 Neuroscience, Intelligence
Justice is Mind 2013 Memory, neuroscience
Pacific Rim 2013 BCI, Robotics, Neuroscience
Free the Mind 2012 Neuroscience, clinical cases, psychology
Head Games 2012 Clinical cases, intelligence, psychology, neuroscience
Limitless 2011 Neuroscience, drugs, intelligence, memory
# Neuroscience in Literature

**William Shakespeare**

William Shakespeare (born in 1564, died in 1616) is perhaps the most well-known English poet and playwright in the world. Was he also an amateur neurologist? Many of Shakespeare's plays contain characters who appear to be afflicted by neurological disorders. Although he did not use the modern terms for the disorders, Shakespeare was very clear in his descriptions of various neurological symptoms. Here is a list of his plays and the possible neurological disorder affecting a character in the play:

<table>
<thead>
<tr>
<th>Name of Play</th>
<th>Neurological Disorder</th>
</tr>
</thead>
<tbody>
<tr>
<td>Troilus and Cressida...</td>
<td>Tremor</td>
</tr>
<tr>
<td>Part 2, Henry VI........</td>
<td>Tremor (possibly Parkinson's disease)</td>
</tr>
<tr>
<td>Part 2, Henry VI........</td>
<td>Paralysis (possibly due to a stroke)</td>
</tr>
<tr>
<td>Measure for Measure.....</td>
<td>Paralysis</td>
</tr>
<tr>
<td>Julius Caesar......................</td>
<td>Epilepsy (&quot;falling sickness&quot;)</td>
</tr>
<tr>
<td>King Lear.........................</td>
<td>Dementia and possible schizophrenia</td>
</tr>
<tr>
<td>Much Ado About Nothing</td>
<td>Dementia</td>
</tr>
<tr>
<td>Twelfth Night......................</td>
<td>Dementia (possibly hepatic encephalopathy)</td>
</tr>
<tr>
<td>Macbeth.........................</td>
<td>Sleepwalking (somnambulism)</td>
</tr>
<tr>
<td>Macbeth.........................</td>
<td>Sleptalking (somniloquism)</td>
</tr>
<tr>
<td>Macbeth.........................</td>
<td>Insomnia</td>
</tr>
<tr>
<td>Macbeth.........................</td>
<td>Nightmares</td>
</tr>
<tr>
<td>Henry IV.........................</td>
<td>Insomnia</td>
</tr>
<tr>
<td>Henry IV.........................</td>
<td>Sleep Apnea</td>
</tr>
<tr>
<td>Richard III.......................</td>
<td>Nightmares</td>
</tr>
</tbody>
</table>

References:


**The Diving Bell and the Butterfly : A Memoir of Life in Death**

by Jean-Dominique Bauby

In December of 1995, Jean-Dominique Bauby, 43 year old editor in chief of Elle magazine in France, suffered a stroke which severely damaged his brain stem. After several weeks in a coma, he woke to find that he was one of the rare victims of a condition called "locked-in syndrome" or LIS, which had left his mind functioning but his body almost completely paralyzed. In a perverse sense he actually got fairly lucky because, unlike most victims, he was still able to move one eyelid. This allowed him to work out, with a speech therapist, a system of communication which entailed winking as someone slowly read through the alphabet. By using
this code, he could painstakingly spell out words, sentences, paragraphs and, finally, this memoir.

The title of the book refers to the metaphors he uses to describe his situation. The physical paralysis leaves him feeling as if he was trapped within a diving bell, as if there is constant pressure pinning his body into immobility. However, at the same time, his mind remains as free as a butterfly and its flights are as random. In fact, he calls the chapters of this book his "bedridden travel notes" and, indeed, they eloquently relate his journey through memory.

More to come….

Non-fiction

The Man Who Mistook His Wife for a Hat
By Oliver Sacks, MD

Awakenings
By Oliver Sacks, MD
What is the American Academy of Neurology?

The American Academy of Neurology (AAN), established in 1948, is an international professional association of more than 30,000 neurologists and neuroscience professionals dedicated to providing the best possible care for patients with neurological disorders.

The AAN is strongly committed to its mission and focuses its efforts on ensuring the reality of the principles and standards set forth in the AAN mission statement.

Mission Statement

The mission of the American Academy of Neurology is to promote the highest quality patient-centered care and enhance member career satisfaction.

Vision

To be indispensable to our members.
Why join the American Academy of Neurology?

Free student membership in AAN includes:

- The member newsletter *AANnews*.
- FREE AAN Annual Meeting registration, which includes scientific platform and poster sessions, Plenary Sessions, Colloquia, Awards Luncheon, Opening Party, Exhibits, reduced Annual Meeting course fees.
- Access to Medical Student *NeuroSAE*.
- Members-only access to the AAN’s web site.
- Opportunity to be selected as an award recipient.
- Subscribe to the *Neurology* journal at a reduced fee.
- Volunteer opportunities in your field of interest.
- An important addition to your professional portfolio/CV.
Choosing the Medical Subspecialty of Neurology

Introduction
This document provides general information for students who may be considering a career in neurology. Those seeking more specific information about the specialty should contact the American Academy of Neurology or the appropriate organization listed below in resources.

About the Specialty
Neurology is a scientific research and clinical specialty that offers an exciting and intellectual avenue for those interested in brain and nervous system disorders. Included are disorders of the brain, spinal cord, peripheral nerves and muscles in both adults and children.

Recent neurologic advances now allow the accurate diagnosis and treatment of many severely disabling disorders considered unapproachable 20 years ago. Breakthroughs in understanding and treatment of other nervous system illnesses seem imminent, making neurology one of the most dynamic fields in medicine. There are opportunities to subspecialize in neurology. The United Council for Neurologic Subspecialties (UCNS) is a non-profit professional medical organization that was incorporated in March 2003. It is sponsored by five parent organizations including the American Academy of Neurology, American Neurological Association, Association of University Professors of Neurology, Child Neurology Society, and Professors of Child Neurology. The primary mission of the UCNS is to accredit training programs in neurologic subspecialties and to certify competence in physicians who have completed an accredited training program, with the goal of enhancing the quality of training benefiting both physicians and patients.

Neurologists treat patients who have a variety of disorders including stroke, headache, epilepsy, multiple sclerosis, dystonia, muscular dystrophy, peripheral nerve diseases, dizziness, infection, tumor, traumatic injuries of the nervous system, mental retardation, learning disorders and Parkinson's, Huntington's and Alzheimer's diseases. Some neurologists are also engaged in neurorehabilitation.

Practicing neurologists often have the responsibility for diagnosis, acute- and long-term care and rehabilitation, while academic neurologists also train new neurologists. Both use modern scientific methods to better understand and treat neurologic illness.

Adult neurology is tied strongly to general and internal medicine as child neurology is to general pediatrics. Both overlap considerably with the field of biological psychiatry.

Individuals are often drawn to neurology when in high school or college because of their fascination with the biological basis of human behavior. Many study psychology, biology, chemistry, and biophysics, though the field includes students from the entire range of scholastic endeavors.
Educational and Training Requirements
To become a neurologist in the United States, extensive education and training is required. An individual must first graduate from an accredited medical school with either an MD or DO degree. Graduates of non-U.S. or Canadian medical schools must pass the examinations administered by the Educational Commission for Foreign Medical Graduates (ECFMG).

Medical students who choose to specialize in neurology must enroll in an accredited neurology residency program. Residency programs accredited by the Accreditation Council for Graduate Medical Education (ACGME) provide supervised neurology experience in both hospital and ambulatory care settings. Educational conferences and research training are also part of a neurology residency.

Physicians specializing in adult neurology complete three years of neurology residency preceded by one year of internship with a minimum of eight months in internal medicine. Those specializing in child neurology spend two years in a general pediatric residency, or a year each in internal medicine and pediatrics, or one year in research and a year in pediatrics. Residents in child neurology then spend at least one year in adult and two years in a pediatric neurology service.

Fellowships in a number of neurological subspecialties are available after residency for subspecialty training or as preparation for a career in research.

Board Certification
Upon completion of residency training, neurologists may seek certification from the American Board of Psychiatry and Neurology (ABPN). To be eligible for certification, applicants must have:
- An unrestricted state license to practice medicine
- Completed the required years of residency
- Successfully passed exams administered by the ABPN.

Medical school graduates seeking entry to neurology residency programs should consult the Directory of Graduate Medical Education Programs (Green Book), published by the American Medical Association. The National Resident Match Program (NRMP) and the Electronic Residency Application Service (ERAS) are national systems for application and selection in adult neurology training programs.

More About the Specialty
In the United States, neurologic illness comprises 15 to 20 percent of general medical care. As effective therapies are developed for more neurologic diseases, and some diseases, such as Alzheimer's increase in prevalence, the demand for neurologists will increase. Many neurologists have major subspecialty expertise and care for patients with particular subclasses of diseases such as neuromuscular disorders, epilepsy, neuro-oncology, behavioral disorders, dementia, movement disorders, stroke, and neuro-visual disorders, or may specialize in neurorehabilitation or neurogenetics, or in research in these specialties.

The practice of neurology is especially exhilarating. It affords the neurologist unique insights into the function of the human nervous system, from movement and sensation to thought and creativity. Neurologists are major contributors to many of the most recent advances in the neurosciences and continuously strive to convert new basic science knowledge into better therapies for patients with disease of the nervous system.
Chapter Guidelines

Article I Name
The name of this organization shall be Student Interest Group in Neurology (SIGN).

Article II Affiliation and Support
The organization shall be affiliated with the Undergraduate Education Subcommittee (UES) of the American Academy of Neurology (AAN).

Article III Local Chapters / Organization Structure
The organization shall consist of local chapters established at accredited medical schools. All full time medical students, faculty, and staff associated with the institution are eligible to join the chapter.

Article IV Purpose
- To make medical students aware of opportunities available in the field of Neurology.
- To further neurologic knowledge of medical students.
- To provide opportunities for medical students to participate in activities related to the field of Neurology including: discussions by Neurologists, patient presentations, seminars, journal clubs, learning materials and arranged shadowing of Neurologists in the workplace.

Article V Membership
A. All full time medical students, faculty, and staff of an accredited medical school may become members.

B. Exceptions may be granted on an individual basis upon review by the existing chapter officers.

C. Chapter members shall be removed at any time by a vote of the majority of the chapter members.

Article VI Meetings
Meetings will be held monthly or as called by the Chapter President. Chapter Officers will develop agendas and handle arrangements for all meetings.

Article VII Officers
A. Chapter Officers:

A President and Faculty Advisor will be the required chapter officers of SIGN. Each individual chapter may elect additional officers at their discretion. Any full time medical student from the chapter institution may serve as an officer. The President will serve a two year term. The
Faculty Advisor shall serve until he/she relinquishes the position or may be removed by a majority vote of chapter members.

B. Duties:

The President shall preside at meetings of SIGN. The President shall be responsible to the AAN Undergraduate Education Subcommittee. The Faculty Advisor is responsible for generating ideas, serving as a resource person, and providing continuity to the organization. Each chapter may define the duties of any additional officers.

C. Election of Chapter Officers:

Election of officers shall take place at a bi-annual business meeting called by the President. A nominating committee composed of the current officers shall develop a slate. Nominations may be accepted from the floor. Election shall be a majority of chapter members present. Election of a new Faculty Advisor shall be made by a majority vote of chapter members.

**Article VIII Proposed Changes in the Guidelines**

Proposed changes will be submitted in writing to the President of a local chapter at least 30 days prior to the next scheduled meeting of the chapter. The vote for such changes may be carried by a majority of the members present. The proposed change will then be submitted to the Chair of the UES of the American Academy of Neurology at least 60 days prior to a regularly scheduled meeting of the Subcommittee. Prior to the meeting, the Chair will seek input from other chapters regarding the proposed changes. UES will vote on proposed changes and these may be carried by a majority of members present.

**Article IX Budget**

Funds for local chapter activities are provided by the American Academy of Neurology. Each chapter may raise additional funds, as necessary, in accordance with Principles Governing AAN Relationships with External Sources of Support, [http://www.aan.com/globals/axon/assets/2304.pdf](http://www.aan.com/globals/axon/assets/2304.pdf). If funds are received from pharmaceutical or device companies, details concerning the amount and purpose of the funds shall be reported to Cheryl Alementi, AAN SIGN Staff Liaison at [calementi@aan.com](mailto:calementi@aan.com).

**Article X Non-Discrimination Clause**

This organization will not discriminate within or outside the greater University community on the basis of race, ethnicity, religion, gender, national origin, sexual orientation, age, disablement, or economic status. Specifically, this organization does not determine or limit membership, voting privileges or leadership positions based on any of the factors listed above. Further, this organization will not practice or promote prejudice or intimidation, and each local chapter will abide by the University policy on ethnic intimidation that is in place at that institution.

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