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**Pediatric Neuromuscular Fellowship University of British Columbia and BC Children’s Hospital**

The Pediatric Neuromuscular Program of BC and the Yukon provides comprehensive clinical care, laboratory testing, research, teaching and clinical trials in neuromuscular diseases. We treat patients with

The field of pediatric neuromuscular disorders is rapidly expanding and we are now in the realm of not just diagnosis, but our ability to identify the genetic etiology, enabling improved diagnosis, prognostication as well as treatments with resulting disease modification, improved health and increased longevity of life. These changes allow us a better understanding of the underlying pathophysiology and increase the likelihood for ongoing more specific treatments.

**Prerequisites for the Trainee:**

The neuromuscular fellow must have completed at least 3 years of neurological or pediatric training

**Timetable for the Program:**

The fellowship is for at least 1 year full time or part time equivalent

Our fellow will receive exceptional training in pediatric neuromuscular disorders, running of a multidisciplinary clinic, integration of neuropathology, neurophysiology and the clinical applications of neurogenetics and neuromuscular respiratory management.

Multidisciplinary Neuromuscular clinics take place weekly where there is a full day of clinic supported by Muscular Dystrophy Canada, with input from neurology, orthopedics, cardiology, respiratory care and home vent team as well as nursing support, physiotherapy , occupational therapy, dietitian and social work as well as access to genetic counsellors. These are longitudinal clinics and the fellow would be involved in the responsibility for establishing standards of care and clinical decision making

There is a new patient neuromuscular clinic weekly, and also regular follow up clinic for neuromuscular patients not attending the multidisciplinary clinic.

Neurophysiology clinics are carried out on both inpatient and outpatient service.

Elective opportunities in muscle ultrasound, muscle MRI and further neurophysiology and neuromuscular sleep disorders are being developed and encouraged.

We also do regular work in neuromuscular transition to adult care and run a transition workshop for families of patients aged 15-18 and the fellow would be expected to be involved with all of these clinics .

The Aim and Goal of the fellowship is to ensure high quality training to allow competency in the diagnosis, and management of neuromuscular disorders in children, as well as knowledge in electrophysiology and genetics of pediatric neuromuscular disorders. We also expect fellows to be involved in clinical trials and a research project and they are encouraged to pursue opportunities for publications and presentations.

We also expect the fellow to be involved in an educational program with review of neurophysiology, neuropathology rounds and neuromuscular genetics review of all genetic testing. They would also present at the neuromuscular journal club and be involved in discussion and presentation of challenging cases.

They would be working and collaborating with other neuromuscular stakeholders involved in the Canadian Neuromuscular Disease Registry and with the Canadian neuromuscular network.

**Expectations of the training programme**

* the fellow must acquire expertise in evaluating and managing patients with a variety of neuromuscular disorders including knowledge of the appropriate laboratory investigations (electrodiagnostic studies, including electromyography and nerve conduction studies, interpretation of muscle and nerve biopsies, muscle / nerve imaging (computerised tomography, magnetic resonance imaging), interpreting genetic and immunological results).
* the fellow must attend lectures and teaching courses dealing with neuromuscular disorders.
* the fellow is encouraged to devote some of the training period to active participation in a research project.
* the fellow is encouraged to take an active role in the teaching and training of residents.
* a neuropathologist with expertise in the evaluation of muscle and nerve biopsies
* a clinical neurophysiologist with expertise in electromyography and nerve conduction studies focused on a wide variety of neuromuscular disorders
* a department of genetics in which there is expertise with counselling of patients with neuromuscular disorders.
* a department of rehabilitation medicine in which there is expertise with management of neuromuscular disorders.
* a department of child neurology in which there is expertise with evaluation and management of neuromuscular disorders in children if the fellowship is to include paediatrics
* a major medical library and access to an on-site collection of appropriate texts and journals.

**Neuromuscular Teaching Curriculum 20/21**

**Series of interactive teaching sessions for fellows and senior residents**

1. Approach to children with potential neuromuscular diagnosis
2. Importance of early diagnosis in Neuromuscular disorders
3. Duchenne Muscular Dystrophy
4. LGMDs
5. Congenital myopathies
6. Genetics of Congenital myopathies
7. Congenital muscular Dystrophies
8. Myotonic Dystrophies
9. Fascioscapulo humeral dystrophy FSHD
10. Congenital Muscular dystrophies
11. Myasthenia Gravis
12. Congenital myasthenic syndromes
13. Peripheral neuropathies-hereditary
14. Acquired Peripheral neuropathies
15. Spinal muscular Atrophy 5q
16. Non 5q Spinal muscular atrophies
17. Neurophysiology of Muscle disease initial approach
18. Neurophysiology of Muscle disease
19. Neurophysiology of neuromuscular Junction
20. Neurophysiology of inherited Neuropathies
21. Neurophysiology of Acquired neuropathies
22. Neurophysiology of AHC dysfunction
23. Freidrich’s Ataxia
24. Metabolic Myopathies ( Dr Brunel)
25. Mitochondrial myopathies ( Dr Salvarinova)
26. Respiratory Care in neuromuscular disorder ( Dr Marie Wright)
27. Cardiac Care in neuromuscular disorders (Dr Human)
28. Anesthetic care in NMD (TBA)
29. Rehabilitation in NMD ( Dr Berger)
30. Muscle Imaging
31. Transition in Neuromuscular Disorders
32. Neuromuscular Journal clubs
33. Neuromuscular Pathology genetic rounds Peds and Adult