




# CANADIAN IONM NEWS

Official Newsletter of CANM

## Message

from the President

The first cohort of the CANM-Michener Institute Certificate in Intraoperative Neurophysiological Monitoring has graduated; the second cohort is over the halfway mark and on target to graduate next Fall and we have recently admitted 10 students into the class of 2018. On behalf of the CANM executive committee, I would like to commend and congratulate the trail blazing graduates of 2016 and encourage them to stay connected to professional peers and mentors through membership and participation in CANM. New graduates can join our association as Associate Members and become involved in a wide array of important CANM initiatives that are setting the course for the future of IONM in Canada. IONM is a small and close-knit community in this country and that makes it possible for new practitioners to make significant professional contributions very early on in their career.

Education has been a definite theme throughout 2016 and one of the showcase events was the 9th Annual CANM IONM Symposium in Halifax, Nova Scotia on September 30th - October 1st. The gathering of IONM professionals and our colleagues from surgery, anesthesia, neurology and other health disciplines was a resounding success, attracting participants from across Canada and the United States. Our keynote speaker was Dr. John Dormans, Chief of Orthopedics at the Texas Children's Hospital and Professor of Orthopedic Surgery at Baylor College of Medicine. Dr. Dormans gave a very insightful address that included his thoughts on the important role that intraoperative neurophysiological monitoring plays in the maintenance of patient safety during spinal deformity correction surgery. Dr. Dormans also participated in a panel discussion that included Dr. David Houlden, CANM's Founding President and Dr. Ron El-Hawary, Chief of Orthopedic Surgery at the IWK Health Centre in Halifax. The panel fielded challenging questions and tackled controversial issues such as IONM as a standard of care in spine surgery. Other invited speakers covered a wide array of topics ranging from deep brain stimulation to neurophysiological recording methods during complex spine and spinal cord surgery. As is the tradition at CANM's annual meetings, the discussions engaged the entire room and were fast-paced, high level and crackled with energy and enthusiasm. If you have never experienced a CANM Symposium, you should make a point of checking one out.

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## from the President

Our gatherings are the perfect size to support meaningful engagement and it is almost impossible to attend without learning at least one new clinical 'trick' or forging an important new professional connection.

This newsletter, Canadian IONM News, was launched in 2012 and there have been three high quality issues published every year since its inception. The Editor-in-Chief from the outset has been one of CANM's founding leaders, Gina Bastaldo. For years, Gina has quietly and diligently worked behind the scenes, leading the design, development and delivery of an outstanding newsletter. Gina's dedication, hard work and talent has meant that CANM has had a voice that reached out into the IONM world at large. Canadian IONM News has chronicled CANM's progress, milestones and successes from the start and it has been a critical part of our ability to showcase our work on an international stage. Gina has been the cornerstone of this publication and on behalf of CANM, I would like to extend our deepest thanks and appreciation for all that she has accomplished. Although Gina has accepted other professional challenges and will no longer be our Editor-in-Chief, Canadian IONM News will forever be synonymous with her name. Thank you so much, Gina, for being such an important member of CANM's Executive Board over the years and for your brilliant stewardship of Canadian IONM News.



Susan Morris, PhD Neurophysiologist  
President, CANM Executive Board  
IWK Children's Health Program  
CDHA Division of Neurosurgery  
Assistant Professor (Surgery) Dalhousie University  
Halifax, Nova Scotia



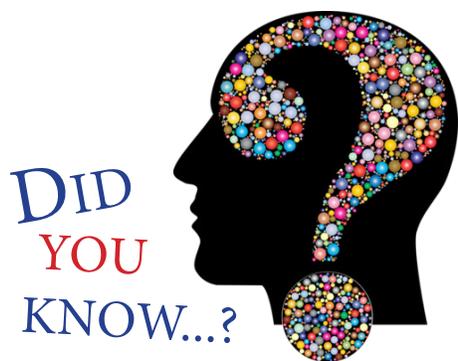
## 2017 CANM Membership Fees

**FULL MEMBER:**  
\$165

**ASSOCIATE MEMBER:**  
\$130

**INTERNATIONAL MEMBER:**  
\$165

**CLICK HERE**  
to sign up today



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# Membership

has its PRIVILEGES!

**Only FULL MEMBERS of CANM** will be eligible for grandfathering allowances related to the future credentialing pathway leading to the Certified Intraoperative Neurophysiology Practitioner (CINP) designation.

Grandfathering allowances are contingent upon maintenance of **RECURRING FULL MEMBERSHIP**, until certified, starting **JANUARY 2018**.

Eligible members will be **EXEMPT** from the following standard pre-requisites:

- Bachelor's Degree in Health-Related Sciences (stream 1 & 2)
- Michener Institute Graduate Certificate in IONM (stream 1)
- (future) CANM-sanctioned Internship (stream 1 & 2)

See **[www.canm.ca](http://www.canm.ca)** for more details on the CINP credentialing pathway

2017 **FULL MEMBERS of CANM** will have the privilege of **VOTING** on the finalized credentialing pathway at the Annual General Meeting of members on Saturday September 16, 2017.

## **BECOME A MEMBER NOW!**

### **New CANM Members**

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|                             |   |
|-----------------------------|---|
| <b>Full Member</b>          | Peter Heyboer - Mississauga, ON   |
| <b>Associate Member</b>     | Nathaniel Amyot - Ottawa, ON<br>Gilaad Levy - Thornhill, ON<br>Rebecca Clark-Bash - Chicago, Illinois |
| <b>International Member</b> | Olga Belyakina - San Francisco, California  |



# Intraoperative Neurophysiological Monitoring Graduate Certificate Program

The Canadian Association of Neurophysiological Monitoring (CANM) and The Michener Institute of Education at UHN have partnered to introduce a one-of-a-kind Intraoperative Neurophysiological Monitoring (IONM) Graduate Certificate Program.

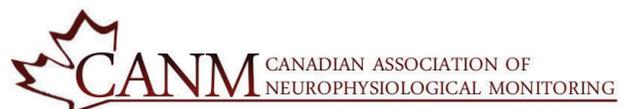
The online program comprises six courses ranging from basic sciences to advanced topics in IONM. *Full CANM members are permitted to take courses individually and non-sequentially without applying for the Graduate Certificate.*

These courses are ideal for IONM practitioners looking for professional development or technologists interested in taking their career to the next level.

|  | Start date  | Register by    |
|--|-------------|----------------|
| <b>IONM 130</b><br>Intraoperative Neurophysiological Monitoring Modalities I       | May 1, 2017 | April 21, 2017 |
| <b>IONM 160</b><br>Advanced Topics in Intraoperative Neurophysiological Monitoring | May 1, 2017 | April 21, 2017 |

Register today for **Spring 2017** courses.  
For more information and to register visit

[MICHENER.CA/CE](http://MICHENER.CA/CE)



## 9th Annual CANM IONM Symposium Recap

For the first time in its history CANM travelled to the east coast of Canada to host the 9th Annual CANM IONM Symposium in the beautiful seaside city of Halifax, NS, on September 30-October 1, 2016. The educational event, held at the boutique Prince George Hotel in downtown Halifax, covered a variety of topics, but centered on a theme of developing standard of care for IONM in spine deformity surgery in Canada.

Dr. John P. Dormans, Past-President of the Scoliosis Research Society and this year's keynote speaker, focused his address on the history of usage of IONM in spinal deformity surgery and the vital role IONM currently plays during complex spinal procedures. This sentiment was echoed by Dr. Ron El-Hawary, Chief of Orthopaedics at the IWK Health Center and member of the Canadian Paediatric Spine Society, and together with Dr. David Houlden, a panel discussion was held to facilitate dialogue on development of standard of care for IONM in Canada, offering opinions from both surgical and neurophysiology perspectives.

An important aspect of standardizing IONM provision in Canada is education of IONM professionals. Dr. Anthony Sestokas, Chief Clinical Officer for Intraoperative Monitoring at SpecialtyCare, gave an overview of educational models and programs that are currently available for those embarking on a career in IONM, and talked about how the Michener Institute Graduate Certificate in IONM program, developed in concert with CANM, fits into this educational framework. As an addition to educational development of IONM in Canada, Allison Bethune, Neurosurgery Research Coordinator at Sunnybrook Health Sciences Center, gave a presentation on clinical research methods in IONM to foster and encourage further learning and discovery in the field.

A topic of great interest, Functional Neurosurgery, was covered with two fantastic presentations. The first, by Dr. Lutz Weise who spoke about current and future research in the field that involves IONM, and the second, by Dr. Marshall Wilkinson who explained the underlying neurophysiology for Deep Brain Stimulation in movement disorders.



### 2016 Panel Discussion

Issues surrounding Standard of Care in Spinal Deformity Surgery were the focus of a panel discussion at the 9th Annual CANM IONM Symposium. Panel participants (left to right): Dr. Ron El-Hawary (member: Canadian Paediatric Spine Society), Dr. John P. Dormans (Past-President: Scoliosis Research Society), and Dr. David Houlden (Past-President: CANM) discussed unique perspectives in Canadian and American spinal deformity surgical practice and the impact of IONM on surgical outcomes. The panel also outlined the need for future collaboration of the respective professional societies.

Photo credit: Dr. Gary Simon

Dr. Simon Walling and Dr. Dan McNeely, prominent Neurosurgeons at the IWK Health Center in Halifax, spoke of the important role IONM has during brain tumor surgery, particularly procedures involving eloquent brain regions. As the main Neurophysiologist at the IWK Health Center, Dr. Susan Morris expanded on the key role IONM played during the cases presented by Drs. Walling and McNeely.

We would like to thank everyone who attended and participated in the 9th Annual CANM IONM Symposium. An event like this would not have been possible without the hard work of the organizing committee and the continuous support of our corporate sponsors. We express our sincerest gratitude.

Based on the overwhelmingly positive feedback received, we are confident that the 9th Annual CANM IONM Symposium provided the attendees with abundant opportunities to become involved in discussions and interactions with colleagues and that useful educational information has been imparted and can translate into improved IONM practices. We will continue our tradition of highly interactive scientific discourse as we celebrate our 10th Anniversary! Please join us for the 10th Annual CANM IONM Symposium which will be held in Toronto, ON - September 15-16, 2017.

**Ekaterina Potapova, BSc, CNIM**  
**2016 Symposium Organizing Committee**



### **CANM President Welcomes Honoured Guests**

(left to right): Laura Dormans (daughter of keynote speaker), Dr. John P. Dormans (2016 keynote speaker), Dr. Susan Morris (CANM President), Dr. Anthony Sestokas (2016 program speaker).

*Photo credit: Dr. Gary Simon*



### **At the Friday Evening Social Event:**

(left to right): Nathaniel Amyot, Suzin Ilton, Laura Holmes, Marshall Wilkinson, David Houlden, Susan Morris, Oleg Kotsovsky, Gary Simon, Tara Palmater.

*Photo Credit: Oleg Kotsovsky*

Celebrating our 10<sup>th</sup>  
Anniversary!

## CANM's 10th Annual meeting!

**In 2008, the first Canadian symposium on** intraoperative neurophysiological monitoring took place in Toronto, Ontario. At that meeting, the concept of CANM was launched and the Canadian Association of Neurophysiological Monitoring (CANM) Steering Committee was formed. Since then, CANM has become incorporated (with bylaws) and we have hosted 9 annual symposiums. This year we will be celebrating the 10th anniversary of our Annual CANM IONM Symposium with a fitting return to Toronto on September 15-16, 2017. This landmark event at the Pantages Hotel will be a learning opportunity as well as a celebration of the many advancements that have been achieved by CANM and its members over the last decade.

IONM has become a critical adjunct to many surgical procedures resulting in an increased demand for services across Canada and

around the world. IONM has steadily evolved as a profession and its current high level of sophistication means that practitioners must possess in-depth knowledge, expertise and technical skills that cross many disciplines and eclipse historical expectations. The maturity and professional recognition that IONM now enjoys means that we are ready to establish ourselves as an independent and self-regulated allied healthcare profession under the leadership of CANM.

Part of CANM's mandate involved partnership with the Michener Institute of Education at UHN and the creation of the Graduate Certificate in IONM which launched in 2014. CANM is now actively developing a comprehensive accreditation initiative that will culminate in a national examination leading to the designation, 'Certified Intraoperative Neurophysiology Practitioner' (CINP). Establishment of standards and advancement of best practices is critical to the success and longevity of our growing field and we need the input of all of our CANM membership. There is no better place to be heard than at the annual symposium.

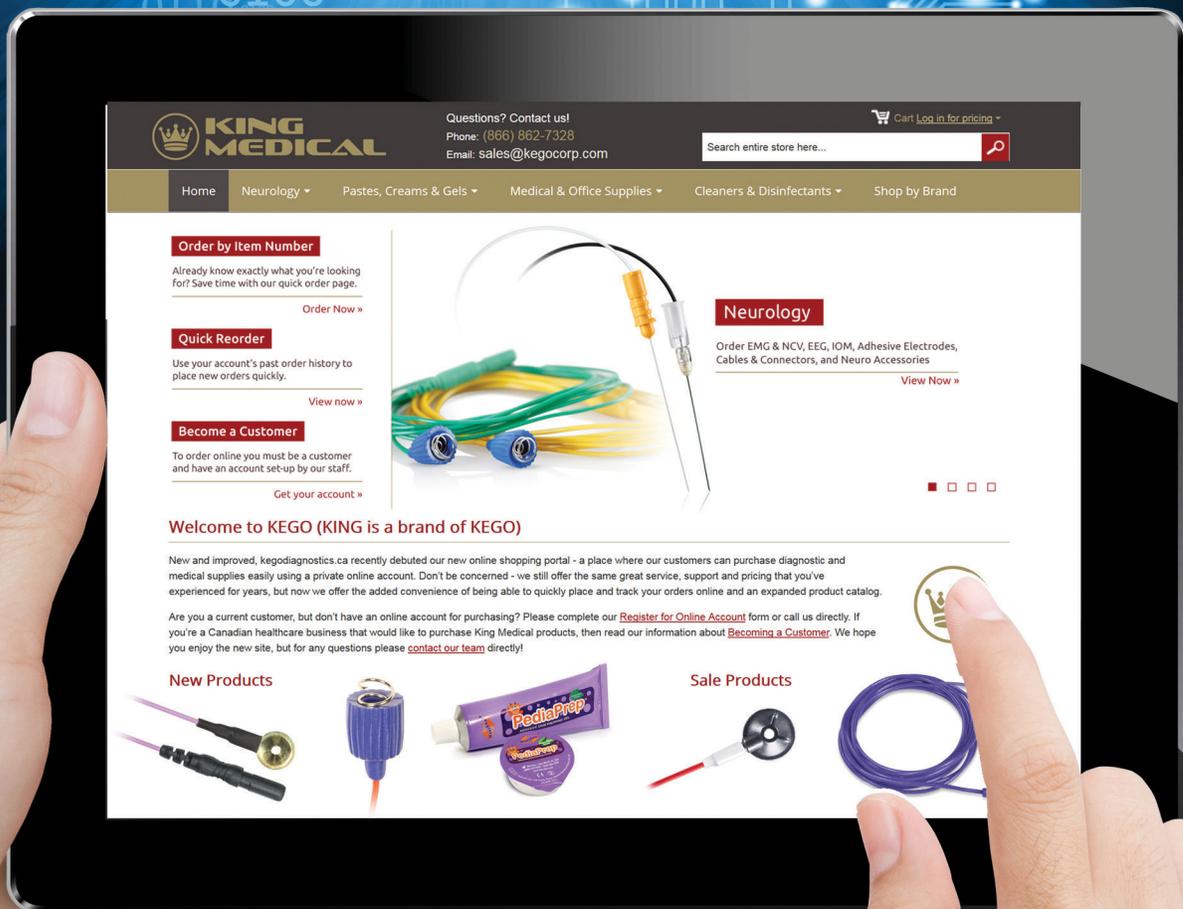
A lot of exciting developments have occurred over the last decade and we are planning to celebrate our successes and plan for our profession's future at our 10th anniversary symposium. So please join us in Toronto on September 15th -16th for the big event and get ready for the next chapter in IONM in Canada.



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## Introducing:

### The Proposed Pathway to Become a **CERTIFIED INTRAOPERATIVE NEUROPHYSIOLOGY PRACTITIONER (CINP)**

The CINP designation is the culmination of a comprehensive educational, training, and clinical experience background, and rigorous credentialing process. It marks the first proposed Canadian board-certification in IONM and is designed to signal professional competency in the practice of IONM. The CINP credentialing process will be administered by the Canadian Board of Intraoperative Neurophysiology Practitioners (CBINP). If you are considering challenging the CINP, the following information is of relevance and we are seeking your input on the proposed pathway.

#### **The CINP examination will consist of up to 3 parts:**

1. Written Exam
2. Oral Exam
3. (Possible) Practical Assessment

#### **In order to challenge the examination, ALL applicants must meet the following criteria:**

- ✓ Stream of Entry Eligibility Conditions Met
- ✓ Minimum 36 Months Experience in IONM
- ✓ Recent IONM Experience (minimum 24 months in previous 5 years)
- ✓ 300 IONM Cases Monitored (not as an observer)
- ✓ Minimum Case Breakdown Achieved (25 each for brain, brainstem, spine, and vascular)
- ✓ Attestation from 2 Surgeons

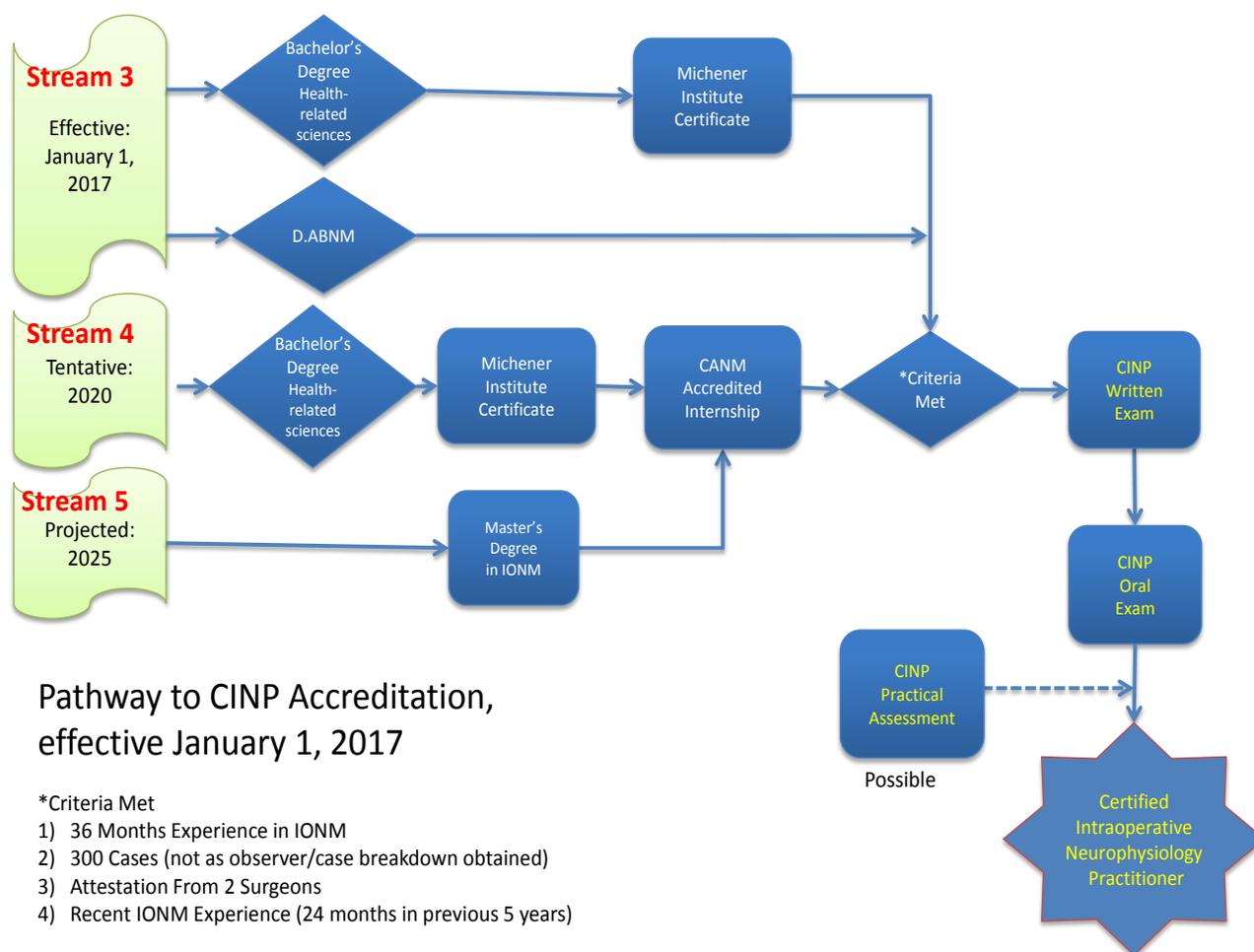
#### **Effective January 1, 2017 - Stream of Entry Eligibility Conditions**

- **All NEW** entrants into an IONM position must meet the following conditions to challenge the CINP examination (Stream 3):
  - Minimum Bachelor's Degree in Health-Related Sciences**
  - Graduate of the Michener Institute Graduate Certificate in IONM program**
- **EXISTING** Canadian IONM professionals may be eligible for an alternate pathway to challenge the CINP examination. Grandfathering allowances will be applied to the following groups contingent upon maintenance of continuous CANM Membership, until certified, starting January 2018:
  - Those hired in IONM between January 1, 2015 and December 31, 2016 must meet the following conditions to be exempt from minimum education requirement and future CANM accredited internship (Stream 2):**
    - Recurring Associate or Full CANM Membership, Recurring Full by 2020**
    - Graduate of the Michener Institute Graduate Certificate in IONM program**

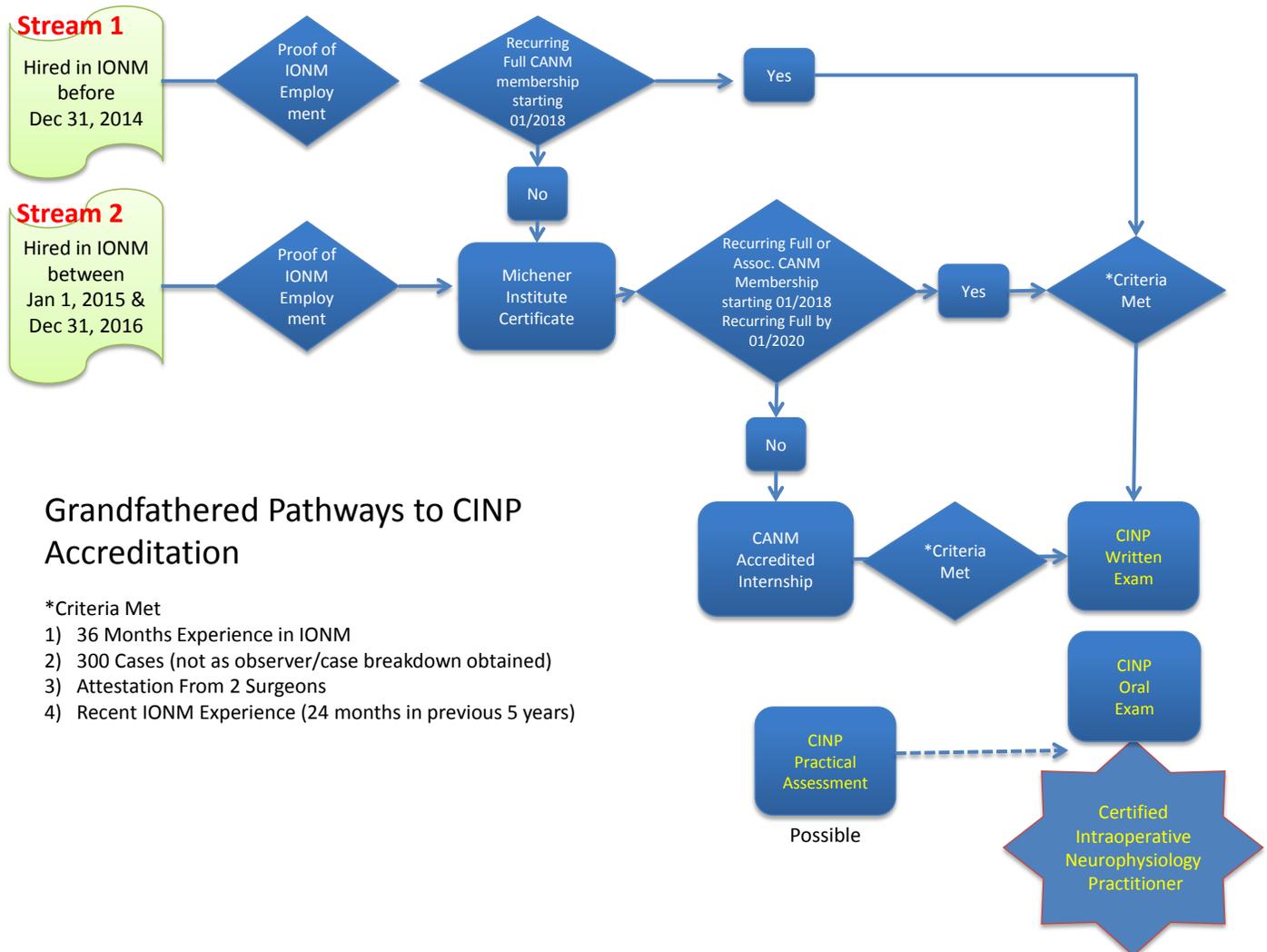
-Those hired in IONM prior to December 31, 2014 must meet the following conditions to be exempt from minimum education requirement, completion of the Michener Institute Graduate Certificate in IONM, and future CANM accredited internship (Stream 1):

-Recurring Full CANM Membership

## The Proposed Pathway to Become a CERTIFIED INTRAOPERATIVE NEUROPHYSIOLOGY PRACTITIONER (CINP)



## Proposed alternate pathway to CERTIFIED INTRAOPERATIVE NEUROPHYSIOLOGY PRACTITIONER (CINP) for existing Canadian IONM professionals



For information about **CANM Membership** criteria please visit <http://www.canm.ca/membership/register>

For information about the **Michener Institute Graduate Certificate in IONM** please visit [http://michener.ca/ce\\_course/intraoperative-neurophysiological-monitoring-ionm-graduate-certificate-program/](http://michener.ca/ce_course/intraoperative-neurophysiological-monitoring-ionm-graduate-certificate-program/)

## Proposed Eligibility Criteria for CINP Certification

| Date  | Stream   | Proof of Employment in IONM | Minimum Education                            | Michener Graduate Certificate in IONM | CANM Accredited Internship  | CANM Membership  | Certified Intraoperative Neurophysiology Practitioner (CINP) Eligibility Requirements  | CINP Written Exam | CINP Oral Exam | CINP Practical Assessment (possible) |
|---|----------|-----------------------------|--|---------------------------------------|-----------------------------|--|--|-------------------|----------------|--------------------------------------|
| Hired in IONM before December 31, 2014                      | <b>1</b> | Required                    | -  | Optional                              | -                           | Effective January 2018: Maintenance of Full CANM membership until certified<br><br>(If no, then)   | - Stream of entry eligibility conditions met<br>- 36 months experience in IONM<br>- Recent IONM experience (24 months in previous 5 years)<br>- 300 cases (25 each for brain, brainstem, spine, and vascular), not as an observer<br>- Attestation from 2 surgeons | Required          | Required       | TBD                                  |
| Hired in IONM between January 1, 2015 and December 31, 2016 | <b>2</b> | Required                    | -  | Required                              | -                           | Effective January 2018: Maintenance of CANM membership. Effective January 2020: Maintenance of Full CANM membership until certified<br><br>(If no, then) | - Stream of entry eligibility conditions met<br>- 36 months experience in IONM<br>- Recent IONM experience (24 months in previous 5 years)<br>- 300 cases (25 each for brain, brainstem, spine, and vascular), not as an observer<br>- Attestation from 2 surgeons | Required          | Required       | TBD                                  |
| EFFECTIVE: January 1, 2017                                  | <b>3</b> | -                           | Bachelor's Degree in Health-Related Sciences | Required (D.ABNM exemption)           | -                           | -  | - Stream of entry eligibility conditions met<br>- 36 months experience in IONM<br>- Recent IONM experience (24 months in previous 5 years)<br>- 300 cases (25 each for brain, brainstem, spine, and vascular), not as an observer<br>- Attestation from 2 surgeons | Required          | Required       | TBD                                  |
| TENTATIVE: January 1, 2020                                  | <b>4</b> | -                           | Bachelor's Degree in Health-Related Sciences | Required (D.ABNM exemption)           | Required (D.ABNM exemption) | -  | - Stream of entry eligibility conditions met<br>- 36 months experience in IONM<br>- Recent IONM experience (24 months in previous 5 years)<br>- 300 cases (25 each for brain, brainstem, spine, and vascular), not as an observer<br>- Attestation from 2 surgeons | Required          | Required       | TBD                                  |
| PROJECTED: January 1, 2025                                  | <b>5</b> | -                           | Bachelor's Degree in Health-Related Sciences | Transition to Master's degree in IONM | Required                    | -  | - Stream of entry eligibility conditions met<br>- 36 months experience in IONM<br>- Recent IONM experience (24 months in previous 5 years)<br>- 300 cases (25 each for brain, brainstem, spine, and vascular), not as an observer<br>- Attestation from 2 surgeons | Required          | Required       | TBD                                  |

## Frequently Asked Questions

### Will the CINP designation be required to practice IONM in Canada?

No, although it will be highly recommended. Employers and Provincial Authorities will continue to be responsible for determining requirements for practice.

### If obtaining the CINP is not required for IONM practice, why should I bother?

There are many reasons one might choose to obtain CINP designation. Some potential incentives are professional development, confirmation of knowledge and skill, expanded scope of practice, ability to work independently, holding a recognized designation, to instill confidence in interdisciplinary colleagues, medico-legal ramifications, potential for salary increase, job growth.

### Are only Canadians eligible to obtain the CINP designation?

No, IONM professionals from around the world are encouraged to obtain the CINP. These applicants are eligible under Stream 3.

### I've been practicing IONM for many years but I don't meet the Full CANM member criteria, can I still write the CINP exam?

Yes, you will be eligible under Stream 3.

### Why is CANM Full membership a condition for the alternate/grandfathered pathway?

Grandfathering allowances are a privilege being awarded to existing experienced Canadian IONM professionals. Those holding Full CANM membership have been active in the field and are experienced in IONM but may or may not meet the minimum education requirements for the standard pathway to CINP (stream 3). Allowing Full members an exemption provides an inclusive route to obtaining the CINP for experienced

Canadian IONM professionals. This condition was developed in 2011, after consultation with Canadian IONM professionals.

### **Why is a Bachelor's degree in health-related sciences required?**

After substantial consultation with Canadian IONM professionals and CANM members beginning in 2008, there was consensus that a Bachelor's degree should be the minimum entry point moving forward. A minimum of a Bachelor's degree will also allow for a future transition to a Master's degree in IONM.

### **When is the CANM Accredited Internship going to be available?**

The development of the internship is underway, however, at the present time there is no firm release date.

### **How did you decide on the case breakdown?**

The case breakdown was intended to capture certain skills that a modern IONM professional (future CINP) should have experience with, in order for the CINP skill-set to be well-rounded and transferrable. As part of the proposal process, we are interested to hear your input.

### **How will I know what is being tested on the CINP examination?**

An outline of examination topics and breakdown will be provided. In addition, competency profiles and scope of practice for CINP will be developed in consultation with Canadian IONM professionals and CANM members.

## *We* want your input

**Want to learn more? Have Questions? Have Concerns? Have Suggestions?**

### **Share your thoughts:**

1. By Email: [info@canm.ca](mailto:info@canm.ca)
2. Join the next CANM talks webinar session

**Town Hall: Proposed Pathway for CINP Accreditation**

CANM Education and Credentialing Committee

Wednesday May 17, 2017

7:30pm EST

**To Register:** Send email with subject line "Register – May 17" to [talks@canm.ca](mailto:talks@canm.ca)

**Input on the proposal must be received no later than June 30, 2017.**

**2017 CANM Full Members** will VOTE on the finalized eligibility and pathway(s) to CINP at the Annual General Meeting (AGM) of members – September 16, 2017.

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## Announcing the next CANM *talks*

CANM is pleased to announce the next session in our **interactive webinar series, CANM *talks***. This is a complimentary webinar series, however, due to limited availability priority access will be given to CANM members. One Category 1 Continuing Medical Education (CME) credit is awarded to each participant by the Royal College of Physicians and Surgeons of Canada in association with the University of Toronto.

### **Town Hall: Proposed Pathway for CINP Accreditation**

CANM Education and Credentialing Committee

Wednesday May 17, 2017

7:30pm EST

- Objectives:**
- 1) Review the proposed pathway
  - 2) Invite questions, comments, and discussion

**TO REGISTER:** Send email with subject line “Register – May 17” to [talks@canm.ca](mailto:talks@canm.ca)

## Upcoming CANM *talks*

### **Medical-Legal Implications of IONM**

Rebecca Clark-Bash, R.EEG/EP T., CNIM, CLTM, F.ASNM, F.ASET  
President, Knowledge Plus, Inc.

Chicago, Illinois

June 2017

### **Pelvic Floor Monitoring and Bulbocavernosus Reflex**

Dr. Stanley Skinner, MD  
Abbot Northwestern Hospital,  
Minneapolis, MN

October 2017



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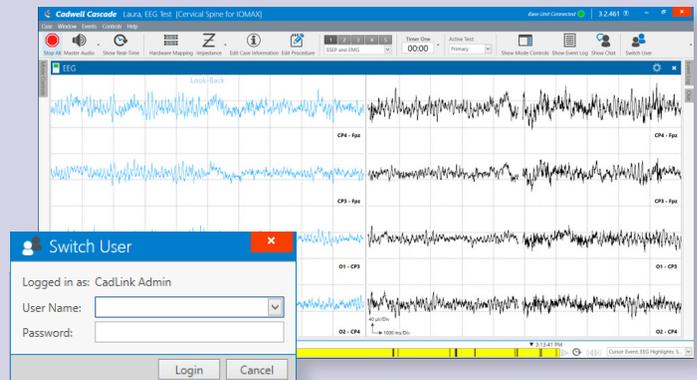
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## SPOTLIGHT:

## Ian Vreugdenhil



*My name is Ian Vreugdenhil and I am 24 years old. Originally from London, Ontario, I am currently living in Toronto, Ontario. In April 2015, I graduated from the University of Ontario Institute of Technology with a Bachelor of Health Science, and in September 2015 I began the Michener Institute Graduate Certificate program in IONM. I've recently been hired at SickKids and am excited to be gaining clinical experience in IONM.*

**How did you hear about the Michener Institute Graduate Certificate in IONM and why did you enroll?**

*I first came across the Michener Institute Graduate Certificate in IONM while researching postgraduate programs online. I decided to enroll because a career in IONM is complementary to many interests and goals of mine, and is also challenging and rewarding.*

**Why would you recommend the Michener Institute Graduate Certificate in IONM?**

*The Graduate Certificate in IONM is a great program for students interested in the field of IONM, I highly recommend it. IONM professionals should also take advantage of this useful resource. The Michener Institute and CANM have created a well-thought-out program that teaches important topics in IONM, and it is well-preparing me for certification.*

**How did you find out about the profession of IONM and what interested you in this career path?**

*I found out about the profession of IONM while researching postgraduate programs online. At the time I wasn't aware that such a profession existed! What interested me most in this career path was its focus on the nervous system and fascinating use of technology in a challenging and exciting environment.*

**What has surprised you about the field of IONM?**

*I was surprised to learn how new the field of IONM is, and also how valuable it is when improving patient outcomes. I know I certainly would not go without it!*

**Why did you attend the 9th Annual CANM IONM symposium and what was your overall impression?**

*I attended this year's CANM symposium because I wanted to gain a better understanding of the profession, to network, and to begin contributing to the field of IONM. I thoroughly enjoyed the symposium and recommend attending. It was a great experience meeting many of the IONM Graduate Certificate program instructors and to listen and to discuss IONM among colleagues.*

# SPOTLIGHT:

## Nathaniel Amyot



*My name is Nathaniel Amyot. I am a 27 year old recent graduate of the Michener Institute Graduate Certificate in IONM program. I hold an Honours Bachelor of Science degree in Neuroscience from Bishop's University. Originally from Montreal, Quebec, I am currently living in Ottawa where I am in the first year of my IONM career at The Ottawa Hospital Civic Campus.*

### **How did you hear about the Michener Institute Graduate Certificate in IONM and why did you enroll?**

*I learned about the graduate certificate program after searching online for Canadian educational programs being offered in the field. I enrolled in the Michener program not only because*

*of its unique curriculum but also because the online courses offered flexibility for balancing other commitments in my life.*

### **Why would you recommend the Michener Institute Graduate Certificate in IONM?**

*I would recommend the Michener Institute Graduate Certificate program in IONM because it offers the student a solid knowledge base supported by experts in the field. Furthermore, the program is the first in Canada and teaches the information in a comprehensive way that can really help to serve as the basis for a student's future career in the field.*

### **How did you find out about the profession of IONM and what interested you in this career path?**

*While completing my Bachelor's degree, I was interested in exploring alternate career paths other than one which was purely academic. After searching online, I discovered the field of IONM, where I learned that I would be able to apply my knowledge in a practical manner in a healthcare setting. The field seemed extremely interesting to me and I was hooked from that point forward.*

### **What has surprised you about the field of IONM?**

*The thing that surprised me the most about the field of IONM is how unknown the profession is to the general public and even to many healthcare workers. I would really love to see this profession grow and become more recognized and I think that the creation of the Michener program in IONM is one major step towards achieving that goal.*

### **Why did you attend the 9th Annual CANM IONM symposium and what was your overall impression?**

*I attended the CANM symposium because I was interested in meeting other people working in the field of IONM and learning from them in terms of their knowledge and experiences. It was interesting to hear their perspective on various aspects of IONM and to learn about the direction that the field may be heading in the future. Overall, the people working in the field seemed very friendly and knowledgeable and I am happy that I attended the conference to learn from them.*

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## A Response to “Where does intraoperative neurophysiological monitoring stand in Canada in 2016?”

The “**Journal of Neurology and Stroke**” has recently published the article, “Where does intraoperative neurophysiological monitoring stand in Canada in 2016?” written by Dr. Sebastien Fournier, Quebec City.

I have been asked to respond to some of the misrepresentations and/or misunderstandings appearing in that article. These were also addressed in a letter sent to the editor of the Journal of Neurology and Stroke.

### ***1. The author states that CANM promotes, “a technologist-only service delivery model for IONM in Canada”.***

CANM does not promote a “technologist-only” IONM service delivery model, rather one where a highly qualified, trained and experienced person in the OR performs and interprets IONM, communicates findings to the surgical team, and participates in recommendations for intervention.

### ***2. The author states, “the majority of members are practicing technologists”.***

CANM’s membership list indicates that of the 30 members in 2016, 13 were MD/PhD/DABNM, 4 MSc, 8 Bachelors and 5 EEG/EP technologists (college or less). (Please note: Dr. Fournier considers all without PhD or MD to be “technologists” (personal communication)).

### ***3. The author states, “..CANM claims that IONM practitioners in the OR (mainly technologists) are ‘qualified to interpret’ IONM data...”.***

CANM has never claimed that an individual is or will be competent to interpret IONM results by virtue of being in the OR. Even the trained and certified graduate may not be competent to monitor/map all procedures as they may lack experience in a modality or procedure. Dr. Fournier’s input would be welcomed in the further development of the qualifying process.

### ***4. The author states, “The CANM proposal assumes that Canadian surgeons will accept all medical liability while the technologist assumes none”.***

To date, it is not clear where liability will lie in Canada as there has not been a case that has made it to trial. In one case (settled out of court), medical liability was shared between the hospital’s insurance company (representing the hospital employee performing IONM), and the medical association’s insurance company (representing the surgeon).

***5. The author states, “Given the advanced nature of IONM in the USA compared to IONM in Canada, it is incomprehensible that CANM, without a shred of evidence to support its position, is opposed to applying the established and regulated American service delivery models to Canada”.***

There is evidence to support the CANM position (described in #1). Animal studies have shown that timely intervention is necessary for prevention of neurological deficit during surgery. The USA has a supervisory model where IONM interpretation (and intervention suggestions) lie with a supervisor who is often outside the OR. From personal communication with individuals currently performing IONM in the USA (including current CANM members who returned to Canada after practicing in the USA), this may lead to delays in interpretation and intervention because it takes time for the supervisor to become apprised of all the mitigating factors (relayed to them by the technologist in the room). Revenue for IONM in the USA comes from supervision and the supervisory model is entrenched in AMA policy. We had the opportunity to develop a model consistent with what we believe is best practice for the patient without being encumbered by financial concerns. We also had the opportunity to align this model with an education and training program designed to make this vision a reality as our profession grows and moves toward becoming a regulated health profession. Accordingly, CANM advocates for an independent practitioner model where a well-trained, educated and experienced person in the OR (actually performing the IONM/mapping) interprets the findings in the context of often changing factors in the OR, promptly relays that information to the surgeon, and participates in recommendations for intervention. There is no denying that supervision is necessary when the person in the room is not capable of the above and/or lacks experience and knowledge in certain modalities and procedures. Availability of second opinion is valuable too. On the other hand, supervision may have the untoward result of making the well-trained, educated and experienced person in the room feel discouraged and uncomfortable in the unfortunate situation where the interpretive and interactive roles are being performed by a supervisor who is less familiar with the case and less experienced and knowledgeable in IONM than the person in the room (resulting in suboptimal practice). Of course, the USA has certain programs with highly advanced IONM. Nevertheless, to balance Dr. Fournier’s statement “Given the advanced nature of IONM in the USA compared to IONM in Canada”, some leaders of IONM in the USA (past and present) have personally communicated to me that we are on the correct path and have, in a short time, surpassed the USA in expertise and quality of neuromonitoring care. We are not sure about that general statement, but we are trying.

***6. The author states the Michener Institute (IONM education) program does not contribute to Canadian IONM needs because, “the majority are overseas students”.***

18 of 20 students enrolled since 2014 were Canadian.

***7. The author states, “...the severe shortage of clinical neurophysiologists in Canada is not an excuse to promote the technologist-only model...”.***

We are unaware of anyone in Canada promoting a technologist-only model. CANM’s position is described in #1.

In summary, the article by Dr. Fournier contains misrepresentations and/or misunderstandings that, I hope, have been explained here. I appreciate Dr. Fournier's concerns and hope to work with him toward the creation of an IONM/mapping model that is best practice for the patient.

Our working environments, reporting structures, as well as our levels of training, experience, education and confidence are not the same across Canada. Courage to understand the viewpoints of others and ask questions is essential for the growth of our profession.

Since I composed this article I have talked to Dr. Fournier about his views about IONM in Canada, including where we are now and where we should go. We share many of the same goals for improving IONM in Canada. I thanked him for his ideas and opinions and encouraged him to become involved in CANM.

*A letter of response has already been submitted to The Journal of Neurology and Stroke from CANM. Despite best efforts, I could not find much information about the Journal of Neurology and Stroke (it is a pay-for-publish, open access journal). Dr. S. Baloyannis is the editor and Medcrave is the publisher.*

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Founding President, CANM



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