Thyrobulletin

Autumn 2018

Light a Tree for Thyroid!



It's our 8th Annual Fundraiser!

How many people



does it take to start a thyroid foundation?

In this Issue:

- Report from the Annual General Meeting
- How many people does it take to start a thyroid foundation?
- Hypothyroidism It's a Daily Trip (Deb's Story)
- Neonatal Hypothyroidism why newborns are checked for Thyroid 8 disease

 A new concept for local area support 9

10

11

12

- Workshop for Saskatchewan patient advisors on deep learning and medical imaging
- Thyroid nodule classification in ultrasound images by finetuning deep convolutional neural network
- Light a Tree for Thyroid!

Hypothyroidism – It's a Daily Trip



Deb's Story





FOUNDER / FONDATRICE Diana Meltzer Abramsky, C.M., B.A. 1915 - 2000



The Voice and Face of Thyroid Health in Canada

La voix et le visage de la santé thyroïdienne au Canada

Thyroid Foundation of Canada La Fondation canadienne de la Thyroïde

National Board of Directors Conseil national d'administration 2018-2019

President/ Présidente Laz Bouros, Ottawa ON

Vice President/Vice présidente Kim McNally, Kingston ON

Treasurer/Trésorière Deb Walker, Brandon MB

Directors/Directeurs/Directrices: Gabriela Albarracin, Ottawa ON Susey Harmer, Oshawa ON Mabel Miller, Gander NL

Thyroid Foundation of Canada P.O. Box 298, Bath ON K0H 1G0 www.thyroid.ca 800.267.8822

Important Notice: The information contained within is for general or diagnosis consult your health care

Avis Important: Les renseignements contenu à l'intérieur sont à titre d`information générale et conséquemment personne ne doit les considérer comme conseils médicaux. Pour traitement ou diagnostique individuelle veuillez consulter votre



From the Editor

Dear Readers,



By the time you receive this, the leaves will have fallen, so Welcome to Autumn! Our new website is done, have you seen it? If not, you can check it out at www.thyroid.ca. It's great to have a new face and provide up to date news and information on thyroid issues that's easy to find and access. Be sure to check into the Members Login on the website. This is a new feature where there are advantages for TFC Members only. If you haven't already signed up for "Just for Members", send us an email to membership@thyroid.ca and your user name and password will be emailed to you.

While the website address has not changed, lots have and then there are lots that have not. It took a lot of work and a lot of time spending hours reviewing, changing, modifying and recommending to the website designer what we needed and discussing what was possible. Our Administrative Assistant, Katherine proved to be very valuable in the process, so kudos to you Katherine. Like all things there's still work to be done as we continue to provide the best we can for thyroid patients. Look for more enhanced changes or additions ahead. Keep checking back often for new and updated information.

Tell us what you think of this issue of *Thyrobulletin* – let us know if you would like other things added or what we could do differently that would be helpful. This is your newsletter so your input is important to us. Get in touch with your comments at info@thyroid.ca. As with the website, Thyrobulletin is our way to keep you up to date and informed on happenings at TFC and with thyroid disease.

In this edition you'll also see an article, "A New Concept for Local Area Support" by Laz Bouros. Be sure to take some time to read it. Let us know if you have any questions or you're interested in this new approach.

The year is fast going and 2018 will soon be gone. Season's Greetings to all and a Healthy and Happy 2019 to everyone from the Thyroid Foundation of Canada National Board.

Mabel Miller

Thyrobulletin Committee/comité du Thyrobulletin: Mabel Miller (Past President/ Ancien président); Katherine Keen (Administrative Assistant/ assistant administratif) Printing/Imprimerie: Staples, Gardiners Rd, Kingston ON

Thyrobulletin is the official newsletter of Thyroid Foundation of Canada Registered Charity BN# 11926 4422 RR0001 Thyrobulletin est le bulletin officiel de la Fondation canadienne de la Thyroïde No

d'enregistrement d'organisation de charité BN#119264422RR0001





A message from the president



Un message de votre présidente

Dear Readers.

As the new President of the Thyroid Foundation of Canada (TFC), I would to introduce myself to you. About 30 years ago I developed secondary hypothyroidism. I had the good fortune of attending a TFC public education meeting in Ottawa at the Civic Hospital. There I met the existing Ottawa Chapter President, Mary McAleese, June Rose-Beaty and Penny Jackson, amongst other great chapter members. That night, it happened that they were looking for volunteers for the new Executive. They convinced me to get involved and since Mary was retiring, I wound up taking on the position of Ottawa Chapter President. Later that year, I went to a national meeting and had the pleasure of meeting Diana Abramsky and much of the original national board. Eventually, I volunteered for the National Vice-President position as well. Three years later, I left TFC to look after my new young family. Last year, since my kids were now adults, I decided to come back to TFC to lend a helping hand again.

From a professional perspective, I have been a Certified Management Consultant since 1995. I have a private practice in Ottawa and have provided consulting services to the Federal Government in the areas of strategic planning, business transformation, business process renewal, organizational analysis as well as a variety of other services. The strategic planning background has been particularly useful in moving the TFC organization forward.

Last year, the board approved a five-year Strategic Plan and prepared an annual Operational Plan. This summer, we completed the six-month long Website Redesign Project. We are currently working on preparing an Advocacy Plan, a new concept for providing Local Area Educational services across Canada, and a Statement of Requirements for a research project to address the quality and quantity of Thyroid care in Canada.

While we are making inroads in the planning area, we need volunteers to help implement these plans. We are looking for volunteers to take on board positions in several areas such as Public Relations, Thyroid Research, Volunteer Recruitment and Development and Local Area Development. Additionally, we are looking for non-board volunteers to work on our Help Line, provide Facebook site support, help manage our new Patient Forum and develop Help Line statistics.

If you would like to become a volunteer, please contact us at 1-800-267-8822 or by email at info@thyroid.ca.

Chers lecteurs,

En tant que nouveau président de la Fondation de la thyroïde du Canada (FCT), je voudrais me présenter à vous. Il y a environ 30 ans, j'ai développé une hypothyroïdie secondaire. J'ai eu la chance d'assister à une réunion d'éducation publique du CFC à l'Hôpital Civic à Ottawa. J'y ai rencontré la présidente actuelle du chapitre d'Ottawa, Mary McAleese, June Rose-Beaty et Penny Jackson, parmi d'autres membres remarquables du chapitre. Ce soir-là, ils trouvèrent des volontaires pour le nouvel exécutif. Ils m'ont convaincu de participer et, comme Mary prenait sa retraite, j'ai fini par assumer le poste de présidente du chapitre d'Ottawa. Plus tard cette année-là, je suis allé à une réunion nationale et j'ai eu le plaisir de rencontrer Diana Abramsky et une grande partie du conseil national d'origine. Finalement, je me suis aussi porté volontaire pour le poste de vice-président national. Trois ans plus tard, j'ai quitté le TFC pour m'occuper de ma nouvelle jeune famille. L'année dernière, mes enfants étant devenus adultes, j'ai décidé de revenir au TFC pour lui prêter main-forte.

Sur le plan professionnel, je suis un consultant en management agréé depuis 1995. Je possède un cabinet privé à Ottawa et ai fourni des services de conseil au gouvernement fédéral dans les domaines de la planification stratégique, de la transformation des activités, du renouvellement des processus opérationnels, de l'analyse organisationnelle ainsi que une variété d'autres services. Le contexte de la planification stratégique a été particulièrement utile pour faire progresser l'organisation du TFC.

L'année dernière, le conseil d'administration a approuvé un plan stratégique quinquennal et préparé un plan opérationnel annuel. Cet été, nous avons terminé le projet de restructuration du site Web, qui dure six mois. Nous travaillons actuellement à la préparation d'un plan d'action, d'un nouveau concept pour la fourniture de services éducatifs au niveau local partout au Canada et d'un énoncé des exigences pour un projet de recherche visant à améliorer la qualité et la quantité des soins de la thyroïde au Canada.

Pendant que nous progressons dans la zone de planification, nous avons besoin de volontaires pour aider à mettre en œuvre ces plans. Nous recherchons des volontaires pour occuper des postes dans plusieurs domaines tels que les relations publiques, la recherche sur la thyroïde, le recrutement et le développement des volontaires et le développement local. De plus, nous recherchons des volontaires ne faisant pas partie du conseil d'administration pour travailler sur notre ligne d'assistance, fournir un soutien sur notre site Facebook, aider à gérer notre nouveau forum des patients et développer des statistiques sur cette ligne.

Si vous souhaitez devenir bénévole, veuillez nous contacter au 1-800-267-8822 ou par courrier électronique à info@thyroid.ca.



ANNUAL GENERAL MEETING JUNE 2, 2018 TORONTO



The Annual General Meeting of the Thyroid Foundation of Canada was held at Four Points Sheraton in Toronto on June 2, 2018. It was reported the past year was a very successful one in many ways.

Some changes took place with the President, Mabel Miller stepping down and Laz Bouros becoming the new president. Mabel has been around the organization since 1990 and has spent most of that time in various roles on the board and will stay around in whatever capacity needed to assist in continuing to help thyroid patients in Canada. Other roles on the board include Kim McNally, VP and Director Patient Support – Deb Walker, Treasurer - Susey Harmer, Fundraising - Gabriela Albarracin, Director at Large & Mabel Miller, Director Education & Publication. Mabel will also chair Thyrobulletin Committee and the Nominations Committee. Thank you to Jeff Griffith, Michael Miller, Frances Salvaggio and Jennifer Olchowy who provided their services during the past year however were unable to continue for the coming year. Your help during the past year is much appreciated and we wish you well. While there are other positions left to fill we are hopeful we'll be able to do so within the near future. At this point we have others who have shown an interest in being involved and we look forward to the expertise they'll be able to add to the board.

Since the last AGM, one big accomplishment was the completion of the revitalization of our website, something we'd been aiming to do for quite some time. If you haven't already, take a look to see the improvements made at www.thyroid.ca and we'll continue to enhance it with more information and assistance for all patients. The Website Committee Laz, Mabel and Katherine spent a lot of extra time in consultations with the IT company trying to make this a much worthwhile accomplishment for TFC.

Other happenings that are very beneficial to TFC are the receipt of two bequests for Research and another for general use of the

organization. What a welcome addition to our funds which are never easy to come by. We are ever so thankful to those who viewed TFC as such a worthwhile cause to give to. We'll be looking to specific purposes for those funds to be used in the near future. We were fortunate to have our Medical Advisor, Dr. Deric Morrison, endocrinologist from London, ON join us for an afternoon of questions and answers as to how to best serve patients, families and the general public. We are working with Dr. Morrison to ensure our resource materials for patients are current and up to date. Hopefully we'll be able to avail of other endocrinologists and medical expertise to complete this in the not too distant future. Should you know of any you think might be inclined to help, please let us know. It's of ultimate importance to have current and up to date information on thyroid conditions available. Many thanks to Dr. Morrison for his continued assistance over the past several years.

The Kitchener- Waterloo Chapter was recognized for their continued dedication in providing Education meetings to patients and the general public in that area. They've done a great job and have kept close ties to others who have contributed to their success, i.e the local library and the local newspaper.



Mabel Miller presenting Certificate of Appreciation to K-W Chapter President Cassandra Howarth (left) and Education Chair Joan DeVille (right)

Where would we be without our Administrative Assistant, Katherine Keen, who has been around the organization since 1988. The wealth of knowledge she shares when dealing with issues is always of great assistance and well appreciated in carrying out various projects, etc. Thank you Katherine, you are an exceptional individual of vital importance to the organization.



All volunteers are welcome at any time!!

The Thyroid Foundation of Canada **Call for Nominations** usually comes in the Spring but we're always looking for others to volunteer and help with the various needs of the organization. Do you enjoy working on a team? Do you have a background in Finance, PR, IT, Management, Public Speaking, helping others, etc. etc.? If you have some time to spare we'd be glad to hear from you. Call us at 1-800-267-8822 or email info@thyroid.ca. Our next AGM is in June 2019. Think about it — Help us to help others.





HOW MANY PEOPLE DOES IT TAKE TO START A THYROID FOUNDATION?

By Jack R. Wall MD, PhD, FRACP, FRCP(C) Professor of Medicine, The University of Sydney, Australia

An article by Dr. Jack Wall, Endocrinologist, who was the first Medical Advisor to the Thyroid Foundation of Canada, the first organization in the world for thyroid disease.

I accept that I will never be recognized for my role in the development of the Thyroid Foundation of Canada (TFC) in 1980 and that to try to convince the Reader otherwise would be politically doomed, so the focus of this short article will be to give the Reader an insight into the origins of the TFC, and how it became the model for other lay organizations for the Thyroid of which there are now more than 20 scattered across the planet.

It all began for the TFC in 1979 in Kingston (Ontario, not Jamaica), where, as a young Australian endocrinologist working at the Hotel Dieu Hospital (The "Doo") and Queen's University, I met Diana

Abramsky who was one of my first patients. Diana had Graves' ophthalmopathy, which at the time, and ever since, has been my main area of basic science and clinical research interest. Diana was very frustrated (even angry) that I could not cure her eye disease. I explained that I would like to but lack of research funding for this not very sexy disease

is holding us back, to which she expressed surprise and sympathy. Yes, researchers always say this about their area of research but it is true that, in a general way, more funding = more research and, occasionally important discoveries that we call "progress".

I suggested to Diana that she go out into the community and set up a "Thyroid Foundation of Canada (TFC)" (it was my idea) based on the "Canadian Heart Foundation". She became interested in this idea, and then obsessed by it, and together we worked on the project for many months, until its fruition. Diana was very aggressive about wanting to set up the Foundation and telephoned me several times daily for help. I, and my secretary at the time, Brenda Peters (now Scott), soon learnt that our office function was to be intimately and forever linked to the evolution of the "Foundation".

Diana, with the support of Dr Larry Wilson, Head of the Department of Medicine at Queens University and Mary Salisbury, his administrative secretary, set up a Thyroid Eye Disease Fund at the University. Diana went "door to door" in Kingston and and convinced many of her friends and community to support thyroid eye disease

research. As a committed researcher my main priority at the time was to obtain funding to do my research and recognition for my contributions to the development of the world's first lay organization for the thyroid was not an issue that bothered me. This came later.

Eventually, a founding Board of Directors, comprising; Diana Abramsky, Evelyn Freeman, Robert Gifford, Phyllis Hannah, Margaret Torgeson, Carol Wright, Natalie Gifford, Florence Gore, Patricia McHenry, Mary Dee Tristan, George Wright, Wally Viner (our lawyer) and myself, was formed which met at City Hall, Kingston, in 1980, to formally constitute the Thyroid Foundation of Canada.

I suggested to Diana that she go out into the community and set up a "Thyroid Foundation of Canada". She became interested in this idea, and then obsessed by it and together we worked on the project for many months I was the first medical adviser for the Foundation and I gave the first key note lecture which, it turned out, was the first public lecture in North America about thyroid disease. Later, I obtained funds from the Canadian Government to prepare, with the help of a summer

student, a series of patient information pamphlets which formed the basis for all other patient information sheets throughout the world.

According to the official history of the Foundation (Commemorative Issue of Thyrobulletin, 1981) Diana Abramsky "informed me" that she was going to develop the Thyroid Foundation of Canada. Later, the TFC web site indicated that Diana Abramsky, "with the help of Dr Jack Wall", developed the Thyroid Foundation of Canada. As the readers know, she was eventually awarded an Order of Canada for her role in the setting up of the Foundation. Details of our early discussions about the Foundation are to be found in my case files. (I have the habit of drawing diagrams, maps and largely unintelligible little jottings and notes that I think are relevant to our discussion and the patient's health issues). This information is available in Diana Abramsky's case files which are stored at Hotel Hospital, Kingston, Ontario, but access has been blocked, as if war secrets. Unfortunately, most of the early members who can attest to my pivotal role have either retired from the Thyroid, passed away or disappeared into their





(Continued from page 5)

communities and cannot be contacted. However, my then secretary, who still lives in Southern Ontario, was and still is the best source of information relevant to the history of the development of the TFC.

I maintained my close link with the TFC throughout my stay in Canada (and the US) but since returning to Australia, distance (and jet lag) have, sadly, weakened this association. In Montreal, I became the medical advisor to a new chapter. Because I am bilingual (well more or less / plus ou moins) I played a major role in ensuring that any Quebec chapters would be bilingual, with presentations in both English and French.

Meanwhile, my research into thyroid eye disease continues. We have recently developed the world's first genetic and antibody tests for Graves' ophthalmopathy. We can now measure specific antibody markers of early eye muscle inflammation and ophthalmologists and endocrinologists in Australia use the tests as aids for the clinical management of their patients with various eye disorders. We have made important progress since those early days in Kingston, Ontario, but one of my biggest achievements has been to help develop the Thyroid Foundation of Canada. I have also maintained my interest in patient issues through my role in



Dr. Jack Wall (left), first Medical Adviser, Diana Abramsky, Founder, George Wright, President & Walter Viner QC, first Legal Adviser, July 1982

the Thyroid Foundation of Australia. Indeed, my involvement with lay organizations for the thyroid has been one of my major career interests and I am certainly proud of any contributions I have made to patient understanding and wellbeing.

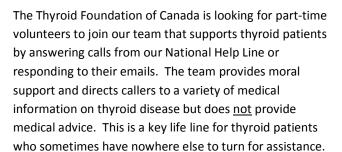
Whilst thyroid diseases are rarely the cause of death they are very common – one form or other, affecting as many as 30% of all adult women and 3% of men - and associated with significant morbidity. Because some commentators and self-proclaimed gurus would go as far as to claim that "every" woman has hypothyroidism, even if their thyroid levels are normal, the Thyroid Foundations may now be faced with a new objective namely, to sort out the truth from the "fake news".

Dr. Wall had and continues to have a great passion for research in thyroid disorders and for the Thyroid Foundation of Canada. While he has spent a great deal of his recent years in his native country, Australia, he still maintains a close affinity for and contact with The Thyroid Foundation of Canada. It indeed was a ground breaking approach to assisting in developing the Thyroid Foundation of Canada and research in Thyroid disease all over the world.

For more information on Professor Jack Wall see:

http://www.thebays.com.au/doctors-and-healthprofessionals/our-specialists/prof-jack-wall/

Volunteers Needed to Support Our National Help Line



Reporting to the Director, Patient Support, applicants should be members of the Thyroid Foundation of Canada and be available to respond to one or two calls per week from their home. Knowledge of thyroid disease would be desirable as well as having good communications skills. Some Help Line telephone experience would be an asset. We are also looking for one or two French speaking volunteers to respond to our French callers. Volunteers would be provided with an orientation presentation and general Help Line call procedures.

If interested, please contact us at 1-800-267-8822 or by email at info@thyroid.ca.







HYPOTHYROIDISM – IT'S A DAILY TRIP DEB'S STORY



When asked to write about my Thyroid journey, at first I thought it was to be about how I got where I am today, but as I think about my journey, I realize it is a daily trip.

Up until about 12 years ago, I worked a full time job, taught night classes and sat on several boards. I was socially active and had a great memory. Then I was first diagnosed with hypothyroidism. At the time my symptoms were not that disruptive so I decided to control my hypothyroidism naturally. I used some natural products for a few years as they seemed to manage things.

However, my weight continued to creep up and lethargy started to happen more frequently. Soon I was finding I had to take afternoon naps to get through the work day. I'm so grateful that by then I had started a home-based business and was able to take these two hour naps. As a result I decided it was time to start prescription meds and that is when the frustrating part of the journey began.

Finding the right dose was not easy. As usual my doctors only tested TSH. After plenty of hours researching I learned that not only did I need to request T3 and T4 tests but that more importantly, it was well within my rights to demand these tests. I tried to find an endocrinologist and was happy to hear when one arrived in my city. He promised he would have me up and running in no time. Sadly that hasn't happened yet and I changed doctors....again.

As my business thrived my dad took sick. My mom and I spent many hours taking him to appointments, many two hours away.

I pushed through, keeping up with work and trying to be a supportive daughter, but I was feeling worse. Although not officially diagnosed, I feel it brought on adrenal fatigue. I realized it was time I take my health seriously and am trying every day to live better. I will admit I have not got this all figured out, but I do my best to do the right things. I know what steps I need to take to be healthier, yet some days I still have no energy or motivation to eat whole foods instead of all the processed foods I was used. I do handle stress better and have returned to daily Reiki self-treatments. I have a doctor that is willing to work with me to find the correct dose for my synthroid and find I am feeling better most days. Although I am still frustrated with the brain fog and am learning to write down more things. That could just be a symptom of menopause - oh yeah, I have that going on too!

While trying to figure out my health issues, I regularly discuss things with my mom. It was interesting to find out my mom was diagnosed hypothyroid years ago. I was surprised to find out her father and one, possibly two of his sisters were also hypothyroid. Grandpa had a goiter so part of his thyroid was removed. Until this news, I had no idea thyroid problems are hereditary.

In being open about my hypothyroidism, I have also discovered several of my friends are hypo. I think I was most surprised because they are active, fit women so I am hopeful that I too will get to that stage and lose the extra weight. This is why I joined the Thyroid Foundation - to find support and to help raise awareness so hopefully others will have an easier time on their journey.

Deb Walker, National Treasurer

THYROID MONTHS – A Year of Thyroid Topics Every month we will feature a topic on Thyroid Disease on the website thyroid.ca

October 2018
November 2018
December 2018
January 2019
February 2019
March 2019

Hypothyroidism Thyroid Disease in Children

Hyperthyroidism Thyroid Nodules

Thyroid Disease, Pregnancy & Fertility Graves' Eye Disease (Ophthalmopathy)

April 2019 May 2019

June 2019 July 2019 August 2019 September 2019 Thyroid Cancer
Thyroiditis

Surgical Treatment of Thyroid Disease

Thyroid Disease and Seniors

Thyroid disease and Mental Health

Thyroid Disease... Overview of Thyroid Function



NEONATAL HYPOTHYROIDISM - WHY NEWBORNS ARE CHECKED FOR THYROID DISEASE

Is a new baby expected in your family? Here's some information you should know about.

Newborn babies are tested using a "heel pad blood-spot test". Neonatal hypothyroidism (or congenital hypothyroidism) is caused, in most cases, by the absence or underdevelopment of the thyroid gland. In other cases, proteins necessary for the production of thyroid hormones are not functioning properly. Thyroid hormones are essential for brain development and growth.

During pregnancy, maternal thyroid hormones cross the placenta and provide for some of the fetal needs. Newborn infants with hypothyroidism that are not treated develop cretinism characterized by severe body and mental defects. These include mental retardation, poor vision, thick, dry skin, protruding tongue, muscle weakness, severe lethargy and tiredness. If diagnosed and treated soon after birth, growth and mental development can proceed relatively normally.

Much of the research work in making an early diagnosis of Neonatal Hypothyroidism was carried out in Canada by Dr. J.H. Dussault at Laval University in Quebec City.



A baby can have hypothyroidism from birth if he or she is born without a thyroid gland or if the thyroid didn't develop completely before birth. And sometimes a baby's thyroid is fully developed at birth but just can't make enough thyroid hormone. ... lodine is a mineral that's needed by the body to make thyroid hormone.



For more information on Neonatal Hypothyroidism go to: https://thyroid.ca/resourcematerial/information-onthyroid-disease/thyroiddisease-in-childhood/

We offer help and support to thyroid patients.



That's been one of our goals for many years, probably since the inception of the Thyroid Foundation of Canada. Many times the calls we receive are from thyroid patients who just want to talk. They are not feeling well and doctors discount their issues saying "it's not your thyroid". Well if it's not your thyroid, what is it? Why are you feeling so tired, so depressed, etc. etc.?? Here's a website that might help a lot to find others who want to share their experiences and are having similar situations:

Peer Support Canada >

Finding someone to talk to...

Peer Support Canada

We believe in the transformative power of peer support.

Peer support is emotional and practical support between two people who share a common experience, such as a mental health challenge or illness. A Peer Supporter has lived through that similar experience, and is trained to support others.

Peer Support Canada connects peer supporters and organizations, helping share information and building capacity for peer support.

Learn more at: peersupportcanada.ca





A NEW CONCEPT FOR LOCAL AREA SUPPORT







Support



Fundraising



Information Displays



Video Conferencing

Last year, shortly after the creation of our Strategic Plan, we established the position of Director, Chapter Development. After a review of our 30-year-old chapter manual and taking into consideration the changes that have occurred over the years, it was proposed that we consider an alternative approach to providing local area services.

In the original model, each chapter was a miniature version of the national organization, with its own President and Executive Committee and finances. With the advent of the Internet and social media, large local support organizations have become more difficult to establish. However, local patient support is still required primarily to conduct local public education events.

As part of the proposed model, we will keep existing chapters from the old system where feasible. New local area volunteers will be recruited to conduct public education events for each area. Overall support management will be provided at the national level through the Director, Local Area Development (formerly Chapter Development). Funding to support local public education events will be provided by the national organization (local banking no longer required). This effectively will eliminate the immediate the need for a Chapter President, Vice-President, Secretary, Treasurer, Membership, Social and Public Relations positions. Volunteers for local area fundraising could be added in the future.

Each new Local Area Coordinator (LAC) for public education will report to the National Director, Local Area Development (LAD). The LAC will plan local public education events and seek local support for the event from attendees (min. 2). This includes arranging for the event, audio-visual equipment, coffee, and greeting, introducing and thanking speakers.

The LAD Director will review and assist with the planning for local public education events including posting of events on national website, coordinating publicity for the event with support from each LAC and providing training for Local Area Coordinators.

While this new model is intended to provide local area support across Canada, small towns and remote areas in almost every province across Canada have additional needs. They are characterized by limited medical services and a lack of access to available IT services which often result in a greater need for information on Thyroid disease and support. There may not be an endocrinologist in the area to speak publicly to a local group of Thyroid patients. As a result, a presentation may need to setup through video conferencing (projected on a screen) or alternately through any of the available telemedicine services. Additionally, regular meetings with local thyroid patients may need to be arranged since many patients will be seeking peer support as well as information on Thyroid disease.

For the LAC volunteer, this represents an opportunity to meet with, network and have a positive impact on the health of thyroid patients, meet with medical specialists (endocrinologists, etc.), receive training from the Thyroid Foundation of Canada, attend the AGM to meet TFC board members and other LACs, and gain valuable management experience.

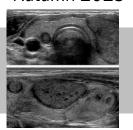
The New Model and Plan was presented to the TFC Board and chapters for feedback this summer. Once approval is obtained from the board this November, the model will be implemented and fine-tuned.

Laz Bouros

If you are interested in getting involved, please write to: info@thyroid.ca or call 1-800-267-8822.



WORKSHOP FOR SASKATCHEWAN PATIENT ADVISORS ON DEEP LEARNING AND MEDICAL IMAGING



This fall, the University of Saskatchewan and the Saskatchewan Health Authority invited the Thyroid Foundation to send representatives to attend a half-day workshop "to determine patient perceptions and priorities for artificial intelligence in medical imaging". I was happy to represent the Foundation at this workshop. There were approximately 20 other "patient and family advisors" from across Saskatchewan and 4 doctors at this workshop. I was the only voice for patients with thyroid disorders.

Preparation for the workshop included reading two articles sent out by the workshop organizer and consulting with the head of a radiology clinic who described how medical imaging is currently used in assessing thyroid conditions. According to him, the only application is to look at thyroid nodules to determine if they are benign or malignant, and to monitor their growth and characteristics. Unfortunately, he said, the ultrasound equipment currently being used only gives a two-dimensional image and when a person has a number of nodules (which is not uncommon), the doctors are never sure if they are looking at the same nodules from one imaging session to the next. He said using 3-D imaging would be a great improvement as the locations of nodules would be better identified, allowing more specific description and classification of nodules. With 3-D imaging, however, it's possible to get an overwhelming

amount of data about the nodules which can be timeconsuming for a human to analyze. Computers could make this analysis much easier.

Machine learning, deep learning and convolutional neural networks were new terms to me, but I think we will soon become quite familiar with them. They refer to computers being able to recognize objects on images and filter data to extract useful information. If you are interested, I recommend that you look up the article, "Current Applications and Future Impacts of Machine Learning in Radiology" in the *Radiology* 2018 journal, Vol. 288, No. 2:318-328.

In general, the workshop asked for our perceptions and concerns about the use of artificial intelligence in various aspects of our health care, and how we thought it could be used to improve health care delivery. We were also asked for our views on ownership of medical images and privacy concerns. It was wonderful to know that two of the doctors leading the workshop, Dr. Paul Babyn and Dr. Gary Groot, are currently involved in research on "Thyroid Nodule Classification in Ultrasound Images by Fine-tuning Deep Convolutional Neural Network".

Donna Miniely, M.Ed. M.A., former President of the Thyroid Foundation of Canada (2014-2016)

Check-your-Neck Fundraiser



Past President Donna Miniely held her 5th annual Check-Your-Neck fundraiser. The coin canisters were placed in a number of liquor stores in the Regina area. This year's total amount collected was \$470.15.

We hope to expand this fundraiser to other locations and provinces.

FUNDRAISING

Do you have a Fundraising idea?

Introducing our new Director of Fundraising, Susey Harmer. She would love to hear from you with your ideas or if you want to hold a Fundraising event.



Susey Harmer

Contact Susey at info@thyroid.ca

Don't forget to help us *Light a Tree for Thyroid* – see back page.





THYROID NODULE CLASSIFICATION IN ULTRASOUND IMAGES BY FINE-TUNING DEEP CONVOLUTIONAL NEURAL NETWORK

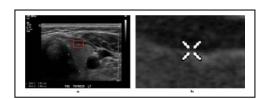
Recent research in Saskatchewan

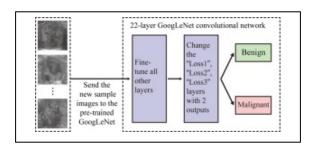
Abstract

With many thyroid nodules being incidentally detected, it is important to identify as many malignant nodules as possible while excluding those that are highly likely to be benign from fine needle aspiration (FNA) biopsies or surgeries. This paper presents a computer-aided diagnosis (CAD) system for classifying thyroid nodules in ultrasound images. We use deep learning approach to extract features from thyroid ultrasound images. Ultrasound images are pre-processed to calibrate their scale and remove the artifacts. A pre-trained GoogLeNet model is then fine-tuned using the pre-processed image samples, which leads to superior feature extraction.

The extracted features of the thyroid ultrasound images are sent to a Cost-sensitive Random Forest classifier to classify the images into "malignant" and "benign" cases.

The experimental results show the proposed fine-tuned GoogLeNet model achieves excellent classification performance, attaining 98.29% classification accuracy, 99.10% sensitivity and 93.90% specificity for the images in an open access database (Pedraza et al. 16), while 96.34% classification accuracy, 86% sensitivity and 99% specificity for the images in our local health region database.





Read the full article:

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5537102/

Authors: Jianning Chi, Ekta Walia, Paul Babyn, Jimmy Wang, Gary Groot, and Mark Eramian

Journal of Digital Imaging. 2017 Aug; 30(4): 477–486.

Published online 2017 Jul 10. doi: 10.1007/s10278-017-9997-v

IMPORTANT DATES in 2019									
January 30	Bell Let's Talk Day	May 25	World Thyroid Day						
May 13-19	Mental Health Awareness Week	June 2	TFC Annual General Meeting						
May 25-31	International Thyroid Awareness Week 2019 This year's theme: <i>The Many Faces of Thyroid</i>	June 1-30	June is Thyroid Month in Canada!						







LIGHT A TREE FOR THYROID! It's our 8th Annual Fundraiser!

Help us light up our Tree with a donation.

The generosity shown by members and friends in previous years has made this a successful annual event and helped TFC to continue its programs. We appreciate your support.

Every \$25 puts an ornament on the Tree

Add your name or dedicate it to someone special,
or just Make a Donation

Please complete the form below										
Your Name:		Ac	Address:							
Add these names to my Tree orna (Limit: 6 characters per ornament										
Donation Amount: ☐ \$25	□ \$50	□ \$100	☐ Other \$		nthly \$	_				
PAYMENT: ☐ Visa ☐ MasterCard ☐ Cheque (payable to Thyroid Foundation of Canada)										
Credit Card No:			Exp Date:							
Donate before December 31st to receive an official tax receipt for 2018. All donations go towards the work of the Thyroid Foundation of Canada. Please send payment to: Thyroid Foundation of Canada, P.O. Box 298, Bath ON KOH 1GO										
You can also make your donation online and check out our Tree at www.thyroid.ca Thank you for your support!										
Is it time to renew your membership? Is it time to renew your membership? Membership/Donation Form										
Name:	Address:									
ONE YEAR: ☐ Regular \$35 ☐	Senior \$30	☐ Family \$4	.5 TWO YI	AR: ☐ Regular \$35	☐ Senior \$30 ☐	Family \$45				
MEMBERSHIP AMOUNT:	\$	PAYMENT: ☐ Visa ☐ MasterCard ☐ Cheque (payable to Thyroid Foundation of Canada								
DONATION AMOUNT: \$		Credit Card No:				Exp Date:				
TOTAL ANAOUNT.	Cond to Thur	Thursid Foundation of Canada D.O. Boy 200 Dath ON VOLLACO								