



# Mackenzie Forbes Society

Making plans today to give each child the brightest future



## Fundamental Research: Crucial Today, Vital Tomorrow

By Renée Vézina, President

Welcome to the 7th edition of the Dr. MacKenzie Forbes Society newsletter. We hope you're making the most of the long, warm days of summer, away from the worries of everyday life.

Unfortunately, that's not the case for parents with a sick child, and even less so for those who come to The Children's looking for answers. Some answers take time and aren't always there when we need them. There's nothing more distressing and frustrating than knowing you are helpless in the face of your child's illness and suffering.

For Pierre L., the answer started to come years later, once he learned about the work of Dr. Guillaume Sébire, one of our clinician-researchers. Dr. Sébire focuses mainly on issues linked to inflammation during pregnancy and the care provided for children born with Down syndrome and other disabilities. Learn how

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## A legacy of hope

**Pierre's life has more meaning now. This career civil servant has experienced multiple bereavements, including the loss of hearing his son speak and say "Daddy, I love you".**

When he was three years old, Olivier, Pierre's only son, was diagnosed with autism and cognitive impairment. Pierre decided to be as present as possible and do everything he could to guarantee his son the best possible life.

In 2018, an interview on the television program *Découverte* was a revelation to Pierre. For the first time, he heard a researcher draw a link between a baby's development in the context of inflammation from asymptomatic

infection of the placenta and the neurological effects on autistic and premature babies. Pierre was shaken; the research carried out by Dr. Guillaume Sébire, a pediatric neurologist at The Children's, provided him with the answers he had been waiting for since the birth of his son. He immediately thought of making a financial contribution to Dr. Sébire's research.

When Olivier reached adulthood, Pierre made sure his son was financially secure. Then as he considered making a larger contribution, Pierre wanted to meet Dr. Sébire before making up his mind.

It was a decisive and emotional meeting for Pierre, Dr. Sébire, and

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# Very promising research into autism



Dr. Guillaume Sébire

Dr. Guillaume Sébire is a pediatric neurologist and a senior scientist at the Research Institute of the MUHC. For the past 25 years, he has worked to discover the hidden inflammatory processes responsible for many neurodevelopmental diseases and disorders, such as cerebral palsy, autism, strokes, and encephalitis.

**“Our little patients are the ones who inspire and motivate us. It is in light of patient and cautious observation of little-known diseases that we find fortuitous clues to discoveries we can investigate.”**

Autism is a neurodevelopmental disorder that sets in before birth and compromises communication and social interaction throughout life. Dr. Sébire’s research has shown that the risk of autism increases if the fetus is exposed to infection or inflammation of the placenta during pregnancy. And if the mother has no symptoms, as is often the case with placental infections, it’s very difficult to treat her and the child.

## From hypotheses to trials

This first fundamental discovery enabled the creation of an animal model to validate the hypothesis. The results confirmed that infection or inflammation of the placenta led to brain damage that destroyed the animal’s socialization and communication skills even before birth. The model also showed that more boys than girls were affected, as with humans. The second discovery, which was entirely

by chance, revealed that by blocking a receptor for an inflammatory molecule – interleukin-1 – that contributes to autism, we could, using an antagonistic receptor, protect the communication and socialization circuit and thus prevent damage caused by placental infection. Encouraged, Dr. Sébire tested a human-approved drug on pregnant rats to protect the brains of their offspring, and the trials were a great success.



## Giving rise to hope

These discoveries are generating a great deal of interest. Dr. Sébire reports that human treatment trials with this drug have just begun in an attempt to protect the brains of premature newborns. Years of further research will be needed to refine these neuroprotective anti-inflammatory therapeutic interventions and develop accurate, non-invasive screening tests for pregnant women. These tests will allow earlier identification of those suffering from infection so that both mother and child can be treated immediately. Dr. Sébire’s research offers genuine hope to parents of children born with disabilities such as autism and other neurodevelopmental disorders.

# Expert Corner

## Donating marketable securities: A win-win strategy

Michelle Liu, Michelle Lui Wealth Management

### Federal Budget 2023: High-income earners, hurry!

However, it’s important to note that recent proposals to the alternative minimum tax (AMT) in the 2023 federal budget may impact the tax advantages associated with gifting shares starting in 2024. The AMT is a parallel tax calculation that applies a flat 15% tax rate with a standard \$40,000 exemption, under the current rules. Taxpayers must pay either the AMT or the regular tax, depending on which amount is higher. The proposed changes for 2024 include increasing the AMT capital gains inclusion rate from zero to 30% for the donation of appreciated securities, and allowing the use of only 50% of non-refundable tax credits (instead of 100%), which could trigger AMT on the donation of appreciated securities.

Moreover, the proposed changes aim to specifically target high-income individuals by raising the AMT exemption from \$40,000 to the

beginning of the fourth federal tax bracket (approximately \$173,000 for the 2024 taxation year) and by increasing the AMT rate from 15% to 20.5%. These changes are scheduled to take effect for taxation years commencing after 2023. Therefore, while donating marketable securities continues to provide tax benefits, the proposed changes to the AMT could impact the landscape for high-income donors.

**It is crucial for individuals in this category to reevaluate their donation strategies considering these new tax implications, and to consider whether a large gift of publicly traded securities should be made in 2023, before the new AMT rules kick in.**



Donating marketable securities, such as stocks, bonds, or mutual funds, to registered charities can offer significant tax advantages for donors, thanks to a unique provision in the Canadian tax rules. This provision eliminates capital gains tax on such donations.

Typically, when selling securities that have increased in value, the seller is responsible for paying capital gains tax on the profit. However, if these securities are directly donated to a charity, the capital gains tax is completely waived. As a result, donors can make larger contributions without incurring any additional out-of-pocket expenses. Additionally, donors receive a charitable donation receipt for the fair market value of the securities on the day of transfer. This receipt can be used to claim a tax credit on their income tax return, further reducing their overall tax liability.

By donating marketable securities, individuals can give more generously while benefiting from substantial tax savings. This mutually beneficial arrangement promotes philanthropy and encourages a culture of giving within the Canadian financial landscape. It serves as an effective strategy for maximizing both charitable impact and financial efficiency.

**Members of the MacKenzie Forbes Society have made a legacy gift to The Children’s through a bequest, a charitable annuity, a gift of life insurance or by establishing an endowment. We are extremely grateful to these donors for helping to ensure the best pediatric care for future generations of young patients. Dr. Alexander MacKenzie Forbes founded the Montreal Children’s Hospital in 1904 and served as its Surgeon-in-Chief until 1929.**

# Fundamental Research: Crucial Today, Vital Tomorrow

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Dr. Sébire's research, gave Pierre hope, and especially how it convinced him to contribute to

giving the researcher the means to pursue his work for years to come.

the article by our specialized guest columnist in the "Expert Corner" section.



*A young patient at The Children's*

By making a legacy donation as Pierre did, you contribute to finding solutions to the problems families face when their child needs help.

To help you decide, we're also providing you with information on how to increase the impact of your generosity through legacy gifts. If you wish to better understand the alternative minimum tax and determine if selling securities is the right strategy for you, read

Your legacy gift is life-changing for our young patients, their families, and the experts who want to help them. Thank you for being part of our story and that of our patients. Thank you for your unwavering support.

**If you want to become a member of the MacKenzie Forbes Society, please contact our in-house expert on legacy giving, Samar El Soufi, whose contact information can be found at the bottom of this page.**

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## A legacy of hope

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his team. Pierre learned that a drug in the United States had shown positive results on animals. It pointed to a possible treatment in Canada and clinical trials in humans in the decades to come.

"Dr. Sébire's research is so important that I have decided to include a planned gift in my will," explains Pierre. "I would like his research to one day enable him to find a non-invasive screening method for pregnant women to identify those at risk of asymptomatic placental

infection. Notably, his research could prevent and treat autism, which mainly affects boys."

Olivier is now 25 years old and living in supervised housing. Pierre continues to see him regularly and looks after his well-being, along with all the other people caring for him.

**"Olivier's greatest joy is eating poutine and following me around when I go shopping," adds his proud dad.**

Pierre will likely never know with certainty that his son's autism resulted from placental inflammation. But the simple fact of knowing that inflammation could one day be detected early in pregnancy gives his life added meaning and makes him feel like he is contributing to something important. An admirable and generous gesture.

