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Growing Concerns

From 1981 to 2005, Dr. Charles Smith worked as a pediatric pathologist at Toronto's world-renowned Hospital for Sick Children (SickKids). Although he had no formal training or certification in forensic pathology, as the 1980s came to an end he started to become involved in pediatric cases that engaged the criminal justice system. Then, in 1992, he was appointed director of the newly established Ontario Pediatric Forensic Pathology Unit (OPFPU) at SickKids. He soon came to dominate pediatric forensic pathology in Ontario. He worked at the best children's hospital in Canada. His experience seemed unequalled, and his manner brooked no disagreement. He was widely seen as the expert to go to for the most difficult criminally suspicious pediatric deaths. In many of these cases his view of the cause of death was the critical opinion, and figured prominently in the outcome.

Over the course of the 1990s, Dr. Smith's reputation grew. But public concerns about his professional competence did as well. As early as 1991, a year before Dr. Smith's appointment as director, a trial judge acquitted a girl who, as a 12-year-old babysitter, had been charged with manslaughter in the death of 16-month-old Amber. His reasons for judgment strongly criticized Dr. Smith, the Crown's central witness, for both his methodology and his conclusions. The case is a cautionary tale of the devastating impact that flawed forensic pathology and irresponsible expert testimony can have on the lives of both those whose children die in suspicious circumstances and those accused of having caused the death. It was also a harbinger of things to come.

Over the decade, this judgment was followed by other warning signals about Dr. Smith's competence and professionalism. Unfortunately, throughout the 1990s, these signs were largely ignored by those tasked with the oversight of Dr. Smith and his work. Ultimately, 14 years after the first warning signal had sounded, the growing concerns culminated in what is now known as the Chief

Coroner's Review. In 2005, the Chief Coroner for Ontario, Dr. Barry McLellan, called a full review into the work of Dr. Smith in criminally suspicious cases and homicides in the 1990s. The results of that review triggered this Commission. A brief outline of the principal events that caused concerns to grow provides a useful backdrop to our work.

The Key Participants

Before describing the warning signs and concerns about Dr. Smith that arose in the 1990s, it is necessary to introduce the main participants in pediatric forensic pathology in Ontario in those years. They were:

- Dr. Charles Smith, the director of the Ontario Pediatric Forensic Pathology Unit from 1992 to 2004;
- Dr. James Young, the Chief Coroner for the Province of Ontario from 1990 to 2004;
- Dr. James Cairns, the Deputy Chief Coroner for the Province of Ontario from 1991 to 2008; and
- Dr. David Chiasson, the Chief Forensic Pathologist for the Province of Ontario from 1994 to 2001.

Dr. Smith was trained as a pediatric pathologist. In 1981, he began working full time at SickKids. Like most pathologists at the time, he had no formal training in forensic pathology. Because of his strong interest in autopsies, however, he began to perform more of them than his colleagues at SickKids, who favoured surgical or clinical pathology for living patients. Initially, he had only limited exposure to criminally suspicious death investigations, but he learned on the job. By the 1990s, he was performing the majority of his autopsies under coroner's warrant. In 1992, although he had been involved with only a small number of criminally suspicious cases, Dr. Smith was appointed the first director of the OPFPU, the unit that was to provide pediatric forensic pathology services for coroners conducting death investigations.

Dr. Young was the Chief Coroner for Ontario throughout the 1990s. In 1975, he graduated from the University of Toronto medical school, where he had no forensic pathology training. He initially practised as a general practitioner in Elmvale, Ontario. From 1977 to 1982, he was also a part-time investigating coroner for Simcoe County. In 1982, Dr. Young left his medical practice and became the full-time regional coroner for Metropolitan Toronto and the Central Region. Dr. Young held this position until 1987, when he became the Deputy Chief

Coroner for Ontario. In 1990, he was appointed Chief Coroner for Ontario, a position he held until April 2004, when he was succeeded by Dr. Barry McLellan. In addition to his role as Chief Coroner, Dr. Young held the position of assistant deputy minister of public safety in the Ministry of the Solicitor General (now the Ministry of Community Safety and Correctional Services) from 1994 to January 2005. From June 2002 to April 2004, Dr. Young was also Commissioner of Public Safety and Security for the Province of Ontario. In 2005, he was appointed special advisor to the deputy minister, Public Safety and Emergency Preparedness Canada. Currently, he is a private consultant.

Dr. Cairns was the Deputy Chief Coroner throughout a large part of the 1990s. He graduated from Queen's University of Belfast medical school in Northern Ireland in 1969. The extent of his training in forensic medicine or forensic pathology was a two-year required course in forensic medicine during medical school. The course included training in wound identification and description, and in writing death certificates, but none in histology – a central component of forensic pathology.

In 1969, Dr. Cairns took an internship at the Emergency Department at Belfast City Hospital. Three years later he moved to Canada, where he worked as a family and emergency physician in Brampton, Ontario, until 1979. From 1979 to 1991, Dr. Cairns was the local investigating coroner in Brampton. In 1989, during his tenure as an investigating coroner, Dr. Cairns became the president of the Ontario Coroners Association. In October 1991, he assumed the position of Deputy Chief Coroner, a position he held until his retirement in January 2008.

Dr. Chiasson was the Chief Forensic Pathologist for Ontario from 1994 to 2001. He was one of the few formally trained and certified forensic pathologists at the time, having trained at the Office of the Chief Medical Examiner in Baltimore, Maryland, from 1991 to 1992. Dr. Chiasson graduated from medical school at Dalhousie University in 1979. While still a student, he developed an interest in pathology and took a one-month forensic pathology elective course in Colorado. After practising as a general practitioner and an assistant medical examiner in Antigonish, Nova Scotia, he did his residency in anatomical pathology at the University of Toronto from 1983 to 1987. As part of his training, he completed two rotations in pediatric pathology at SickKids. His role as a representative on the Residency Training Committee afforded him occasions to work with Dr. Smith, who at that time was the residency training director in anatomical pathology for the University of Toronto.

Dr. Chiasson worked in cardiac pathology from 1989 to 1991. In 1991, he decided to move into forensic pathology and began doing fee-for-service work for the Office of the Chief Coroner for Ontario (OCCO). Recognizing the importance

of formal training in forensic pathology, Dr. Chiasson approached Dr. Young, and the OCCO agreed to provide Dr. Chiasson with financial support for his forensic pathology training. From 1992 to 1994, he worked at the Toronto Hospital and also performed autopsies for the OCCO. In April 1994, Dr. Young appointed Dr. Chiasson to the position of Chief Forensic Pathologist. Dr. Chiasson was the Chief Forensic Pathologist until he resigned in June 2001. Dr. Chiasson is currently the director of the OPFPU at SickKids.

Two others also require introduction at this stage. Dr. Barry McLellan was the Acting Chief Coroner for Ontario from 2002 to 2004 and, on Dr. Young's retirement in 2004, became the Chief Coroner. Dr. McLellan obtained his medical degree from the University of Toronto in 1981. He subsequently undertook specialty training in emergency medicine and held a variety of positions at the Sunnybrook Health Sciences Centre. Through his work with trauma victims, Dr. McLellan became interested in how the coroner's system prevented injuries and deaths. In 1993, he was appointed an investigating coroner. In 1998, Dr. McLellan was appointed the regional coroner for Northeastern Ontario, and, in 2000, he became the regional coroner for the Greater Toronto Area East Region.

On June 30, 2001, Dr. McLellan was appointed Deputy Chief Coroner of forensic services at the OCCO. In the absence of a Chief Forensic Pathologist at that time, he also assumed the administrative functions associated with that position, including organizing daily rounds and educational courses, setting policy, and dealing with pathologists in relation to timeliness issues.

Dr. McLellan became Acting Chief Coroner for Ontario in July 2002. He assumed responsibility for almost all of the OCCO's daily management. After Dr. Young resigned in April 2004, Dr. McLellan became the Chief Coroner for Ontario. Under Dr. McLellan's direction, the OCCO instituted a number of new policies and quality control practices to improve the quality of pathology services in coronial death investigations. In September 2007, Dr. McLellan resigned from the position of Chief Coroner to become the president and chief executive officer of Toronto's Sunnybrook Health Sciences Centre.

In 2006, the current Chief Forensic Pathologist, Dr. Michael Pollanen, was appointed to the position, which had been vacant since Dr. Chiasson's resignation in 2001. Dr. Pollanen completed his PhD in pathology and neuropathology at the University of Toronto in 1995 and won the Governor General's gold medal for his work. In 1999, he obtained his medical degree from the University of Toronto. He subsequently completed a specialty certification in anatomical pathology as a fellow of the Royal College of Physicians and Surgeons of Canada. He also obtained specialty certification in forensic pathology in the United Kingdom. In 2003, Dr. Pollanen became a staff forensic pathologist at the

Provincial Forensic Pathology Unit (PFPU) at the OCCO in Toronto. The following year, he was appointed medical director of the unit. He is also an associate professor of pathology at the University of Toronto and a consulting forensic pathologist for SickKids.

Causes of Growing Concerns

Amber's Case

Amber was born in March 1987 in Timmins, Ontario, and died in July 1988. She was 16 months old. Her summer babysitter, a 12-year-old girl known as S.M., had been carefully selected by Amber's parents and her initial interactions with Amber had been closely supervised by Amber's mother. Amber was a happy and healthy toddler with no known health problems. She was very fond of S.M.

On the afternoon of July 28, 1988, Amber, S.M., and S.M.'s mother arrived by ambulance at a hospital in Timmins. Amber was semi-conscious. According to S.M., Amber had fallen down five carpeted stairs in her family home. A surgeon at the hospital performed bilateral burr hole surgery on Amber, which revealed significant cranial swelling, a left subdural hematoma, and cerebral contusion.[1] Amber was then transferred by air ambulance to SickKids, where a neurosurgeon performed a craniotomy and removed the subdural hematoma. However, her brain continued to swell.

The SickKids doctors suspected that Amber's devastating injuries were not accidental and consulted with the hospital's Suspected Child Abuse and Neglect (SCAN) Program. One of the SCAN doctors examined Amber and agreed that her injuries were out of proportion to the reported history. Amber never regained consciousness, and she died on July 30, 1988.

The concerns of the SCAN physicians were never communicated to the coroner. He concluded that Amber had died of a head injury caused by an accidental fall and did not order an autopsy. When the SCAN doctors and Dr. Smith learned that no autopsy had been performed, they agreed that Dr. Smith should approach the OCCO about an exhumation. In their view, the history of a short fall did not explain Amber's injuries or her death.

In August 1988, an exhumation order was eventually issued, Amber's body was exhumed, and Dr. Smith performed the post-mortem examination at the PFPU in Toronto. At the time, he had neither formal training in, nor much experience,

[1] Medical terms used in this Report are defined in the medical glossary at the front of this volume.

conducting post-mortem examinations in criminally suspicious circumstances. Dr. Smith determined that Amber had died of a head injury, with a unilateral subdural hemorrhage (caused through the stretching and tearing of small veins in the brain), bilateral retinal hemorrhage, optic nerve hemorrhage, and cerebral edema (accumulation of excessive fluid in the substance of the brain; also known as swelling of the brain). He also discovered several areas of bruising, including those on Amber's forehead, her right cheek, her left rear hip, and her legs. After the autopsy, he told the attending police officers that he felt strongly that Amber had been shaken to death, and there was no way a fall like the one reported by S.M. could account for Amber's death.

Dr. Smith completed his report of post-mortem examination in late November 1988. Two weeks later, in mid-December 1988, he and Dr. Young, who was then Deputy Chief Coroner for Ontario, travelled to Timmins to meet with Crown counsel and the police. Dr. Smith and Dr. Young informed them that Amber had died of a head injury caused by severe shaking. Two days later, the police arrested and charged S.M. with manslaughter.

S.M.'s trial began in Timmins on October 2, 1989, before Justice Patrick Dunn of the Ontario Court (Provincial Division). Dr. Smith, the principal witness for the Crown, testified over five days in February 1990. One of the SCAN physicians and several other SickKids physicians also testified for the Crown.

At the trial, Dr. Smith told the court that there was "no possibility what-so-ever" that a fall down the five carpeted steps in Amber's home could account for her death. In his view, small household falls never caused a child's death. Despite the controversy surrounding the topic, Dr. Smith was unequivocal, stating, "[Y]ou have to drop [children] from three storeys in order to kill half of them. You have to drop them from more than three storeys in order to kill more than half of them." Dr. Smith never mentioned that his opinion on this topic was in any way controversial. He told the court that Amber died of "pure shaking"; that is, shaking without impact.

S.M.'s family sold their family home and cashed in their retirement savings to fund her defence. Defence counsel called approximately 10 experts in total, including leading forensic pathologists, neuropathologists, and experts in biomechanics. Although their evidence was inconsistent on a few of the many issues, they all agreed that, in rare circumstances, low-level falls could cause serious injury or even death in infants and children.

On July 25, 1991, Justice Dunn delivered his reasons for judgment. He acquitted S.M. of manslaughter. He found S.M.'s explanation that Amber had fallen down the stairs to be credible and accepted the defence experts' evidence that small household falls could cause serious injury or death in a child of Amber's

age. He emphatically rejected Dr. Smith's evidence. In a detailed and trenchant review of Dr. Smith's forensic analysis and approach, Justice Dunn concluded that Dr. Smith lacked objectivity, failed to investigate thoroughly all relevant facts, and neglected to keep adequate records of his work and findings. He also determined that Dr. Smith lacked familiarity with the relevant scientific literature.

Almost all of Justice Dunn's criticisms have stood the test of time. Most of the weaknesses that Justice Dunn identified in Dr. Smith's forensic pathology reappeared in Dr. Smith's work in criminally suspicious cases over the next decade. Justice Dunn's judgment proved to be prophetic.

In January 1992, SCAN physicians, Dr. Smith, and Crown counsel met to discuss Justice Dunn's reasons for judgment. No one present at that meeting appears to have taken to heart Justice Dunn's many criticisms of Dr. Smith and the other hospital physicians. Rather, they concluded that the judge did not adequately understand the science of shaken baby syndrome.

In November 1991, S.M.'s father, D.M., sent Justice Dunn's reasons for judgment to the College of Physicians and Surgeons of Ontario (CPSO), and in March 1992 he filed a formal complaint with the CPSO regarding Dr. Smith, two other SickKids physicians, and the SCAN team. Subsequently, Dr. Young and Dr. Cairns also learned of S.M.'s acquittal.

Despite the significance of Justice Dunn's criticisms, the OCCO failed to pursue the matter beyond informal discussions with Dr. Smith. Although the CPSO did initiate an investigation as a result of D.M.'s complaint, Dr. Smith actively thwarted that attempt. Dr. Smith told the CPSO that, during the trial of S.M., Justice Dunn repeatedly indicated to him that he believed that S.M. was guilty. Dr. Smith told Dr. Young and Dr. Cairns that, after delivering judgment in the case, Justice Dunn had a change of heart and admitted to Dr. Smith that, had he fully understood the medical evidence presented at the trial, he would have convicted S.M. of the manslaughter charge.

None of these allegations was true. Nevertheless, both the CPSO and the OCCO accepted them at face value. Neither organization investigated the truth of Dr. Smith's claims. In fact, when Dr. Young and Dr. Cairns learned of S.M.'s acquittal, neither of them even read Justice Dunn's decision to inform themselves of the trial judge's criticisms.

Justice Dunn's decision raised a danger signal about Dr. Smith's competence and professionalism. Unfortunately that signal was ignored, and any opportunity for re-evaluation of Dr. Smith's work was lost.

Another opportunity arose in Nicholas' case.

Nicholas' Case

Nicholas died on November 30, 1995, in Sudbury, Ontario. He was 11 months old. That day, his mother, Lianne Gagnon, saw Nicholas crawl underneath a sewing table and fall from a standing to a sitting position. She assumed that Nicholas had hit his head on the underside of the sewing machine. He cried and then stopped breathing, almost immediately. An ambulance took Nicholas to Sudbury General Hospital, where he was pronounced dead.

The next day, a pathologist at Sudbury General Hospital performed the post-mortem examination. He concluded that no anatomical or toxicological cause of death had been established, and that the autopsy findings were consistent with sudden infant death syndrome (SIDS), provided all other aspects of the investigation were negative.

Almost a year later, in November 1996, the regional coroner became concerned that Nicholas' death did not have the typical features of SIDS and referred the case for review to an expert committee at the OCCO, the Paediatric Death Review Committee (PDRC). The PDRC in turn assigned the case to Dr. Smith. During his initial review, Dr. Smith had two pediatric radiologists at SickKids, Dr. Paul Babyn and Dr. Derek Armstrong, review a copy of the X-rays taken at the autopsy. Dr. Babyn wrote a letter to Dr. Smith in which he opined that the radiographs showed a mild diastasis (widening) of the skull sutures and a suspected fracture to the left side of Nicholas' mandible.

Dr. Smith produced his own consultation report to the PDRC in January 1997. He concluded that "in the absence of an alternate explanation, the death of this young boy is attributed to blunt head injury." Dr. Smith based this conclusion on five findings, two of which were taken from Dr. Babyn's report. The five were cerebral edema; an increased head circumference; split skull sutures; a fracture to the left side of Nicholas' mandible; and a scalp injury. Shortly thereafter, Dr. Smith met the investigating coroner, the regional coroner, and several police officers at Sudbury General Hospital to discuss his findings. He informed the members of the death investigation team of his five findings, which led the police to treat the case as a potential homicide. Not long after the meeting, however, Dr. Babyn and Dr. Armstrong examined the original radiographs and informed Dr. Smith that they were no longer convinced that Nicholas had a fracture to his mandible.

In May 1997, Dr. Smith and Dr. Cairns met with the Sudbury police and the regional coroner. They all concluded that a re-examination of Nicholas' body was warranted. During the meeting, the investigating police officer also gave Nicholas'

medical records to Dr. Smith. The records revealed that Nicholas had a large head during his life, meaning his head circumference at death was within the range of normal. Thus, one of the five findings supporting Dr. Smith's opinion – an increased head circumference – was disproved.

On June 25, 1997, Nicholas' body was exhumed. Dr. Smith took his 11-year-old son with him to the disinterment. Dr. Smith performed the second autopsy the next day. At the second autopsy, Dr. Smith noted some hemorrhagic discolouration along the skull sutures, which he believed was in keeping with his finding of split skull sutures. He also confirmed that there was no fracture to Nicholas' left mandible. The second of the five findings underlying Dr. Smith's diagnosis was disproved.

Despite this new evidence, Dr. Smith's opinion did not waver. In August 1997, he continued to insist that Nicholas had not died of natural causes but from cerebral edema, consistent with a blunt force injury to the head. He told the police that Ms. Gagnon's story that Nicholas had died after a small bump to the head was inconsistent with the medical evidence.

Notwithstanding Dr. Smith's opinion, Crown counsel and the police ultimately determined that there was no reasonable prospect of conviction if criminal charges were laid in connection with Nicholas' death. In December 1997, however, the police reported their suspicions of child abuse to the local children's aid society (CAS), and informed the CAS that Ms. Gagnon was expecting another child. So, as potential criminal proceedings came to a close, CAS proceedings were just beginning.

In April and May 1998, the CAS held two case conferences. Dr. Cairns attended both, while Dr. Smith was present only at the second. During the meetings, Dr. Cairns informed the CAS that Nicholas had not died of SIDS, but of cerebral edema. Dr. Smith was more specific. He told the CAS that he was 99 per cent certain that Nicholas had died of a non-accidental trauma caused by his mother. Armed with the opinions of the Deputy Chief Coroner and the leading pediatric forensic pathologist in the province, the CAS commenced an application for Crown wardship of Ms. Gagnon's unborn child.

During those proceedings, the Gagnon family retained a respected neuropathologist, Dr. William Halliday, to provide an opinion on the case. Like S.M.'s family, Ms. Gagnon's parents drained their retirement savings to mount a defence for their daughter. In June and July 1998, Dr. Smith, Dr. Halliday, and Dr. Cairns exchanged affidavits.

Dr. Halliday swore his first affidavit in June 1998. He opined that Dr. Smith's conclusion about Nicholas' death went "far beyond the boundaries that can be

supported by the presenting scientific and forensic facts." He classified Nicholas' death as sudden unexplained death syndrome (SUDS),[2] or undetermined. On receiving Dr. Halliday's affidavit, the CAS contacted Dr. Cairns and Dr. Smith. Both doctors remained steadfast in their view that Nicholas' death was not accidental. They informed the CAS that Dr. Halliday's opinion was unsustainable and that the OCCO's opinion on the cause of Nicholas' death had not changed.

Dr. Cairns and Dr. Smith then confirmed their positions in writing and under oath. In June 1998, Dr. Cairns swore an affidavit in which he confirmed that he "wholly agree[d] with the findings of Dr. Smith." Dr. Cairns had little pathology training or expertise, but his affidavit contained what purported to be an expert pathology opinion. As a result, the CAS believed, mistakenly, that the Deputy Chief Coroner was qualified to offer an expert opinion on the cause of Nicholas' death, and that his expert opinion independently supported Dr. Smith's.

At the end of June 1998, Dr. Smith swore his first affidavit. In his affidavit, Dr. Smith misrepresented Dr. Babyn's finding of "mild diastasis" as a "marked widening" of the skull sutures. He opined, "at a high level of certainty," that Nicholas died of a non-accidental injury, likely a blunt impact to the head. Although Dr. Smith allowed for the possibility that Nicholas' death was caused by asphyxia, he maintained that Ms. Gagnon's story was not sufficient to explain Nicholas' death.

In July 1998, Dr. Halliday and Dr. Smith exchanged two more affidavits. They continued to disagree on what caused Nicholas' death. Dr. Halliday raised the possibility that Nicholas had suffered a head injury several weeks before his death and that he was re-injured when he bumped his head on the underside of the sewing machine table. Dr. Smith believed that the scenario was implausible.

In the meantime, on June 27, 1998, Ms. Gagnon gave birth to a daughter. Immediately following the baby's discharge from the hospital, the infant was placed in the custody of Ms. Gagnon's parents, as a result of a settlement reached between the CAS and the Gagnon family. Two days later, the CAS filed a child protection application for Crown wardship over Ms. Gagnon's daughter. At the end of July 1998, the Court made an interim order directing that Ms. Gagnon's daughter be placed in the care of her grandparents, subject to CAS supervision and on the condition that Ms. Gagnon's contact with her daughter be supervised at all times. Two days later, Ms. Gagnon's name was placed on the Child Abuse Register.

In December 1998, because of the pathologists' conflicting opinions, counsel for the CAS and counsel for Ms. Gagnon agreed that an independent opinion on

[2] "SUDS" is sometimes referred to slightly differently as "sudden unexpected death syndrome" or "sudden unidentified death syndrome." "SUDI," or sudden unexpected death in infancy, is also used. The OCCO uses the term "undetermined," although "unascertained" has also been used in Ontario and elsewhere.

the pathology findings was needed and sought the assistance of the OCCO. The OCCO retained an American forensic pathologist, Dr. Mary Case, to conduct an independent review of the case. The OCCO decided that it would accept Dr. Case's opinion as conclusive, whatever it might be.

Dr. Case produced her consultation report to the OCCO in early March 1999. In her view, the cause of Nicholas' death was undetermined, and there were no findings to attribute Nicholas' death to either a head injury or asphyxia. She concluded that the discolouration observed along the sutures likely occurred post-mortem, as a result of a long interment and exhumation; and that Dr. Smith's finding of cerebral edema was entirely non-specific. In other words, there was no evidence to suggest that Nicholas had died of a head injury.

As a result, on March 25, 1999, the CAS vacated all temporary orders in respect of Ms. Gagnon's daughter, withdrew the child protection application, and removed Ms. Gagnon's name from the Child Abuse Register. Ms. Gagnon's ordeal was finally over.

That was not the end of the Gagnons' story, however. During and after the CAS proceedings, Ms. Gagnon's father, Maurice Gagnon, tried to alert the OCCO and others of his concerns about the conduct of Dr. Smith and Dr. Cairns. He filed complaint after complaint, with many institutions. In October 1998, Mr. Gagnon complained to the CPSO about Dr. Smith's conduct in bringing his son to the disinterment. In February 1999, he filed a complaint about Dr. Smith with the Coroner's Council, which was charged with investigating complaints about coroners. After learning that the Coroner's Council had been abolished, Mr. Gagnon complained again to the CPSO, in November 1999 and in March and May 2001, alleging that Dr. Smith's actions amounted to professional misconduct. With respect to Dr. Cairns, Mr. Gagnon filed a complaint with the Solicitor General of Ontario, claiming, among other things, that Dr. Cairns was unduly influenced by Dr. Smith's opinion and that Dr. Cairns' judgment had been clouded by his quest to eradicate child abuse. In June 2000, Mr. Gagnon wrote to the Ombudsman of Ontario and requested an objective investigation of his complaint against Dr. Smith and Dr. Cairns, as well as a thorough investigation of the complaints process at the OCCO. And in August 2003, Mr. Gagnon wrote to the Office of the Auditor General of Ontario, regarding the OCCO's lack of public accountability and negligence in its continued funding of the OPFPU.

Mr. Gagnon was persistent. His letters were well researched and well reasoned. Given what is now known, many of his concerns about Dr. Smith, Dr. Cairns, and the OCCO were legitimate. Unfortunately, those in the senior positions at the OCCO did not listen. Dr. Young responded to several of Mr. Gagnon's complaints. Despite Dr. Case's clear opinion, which the OCCO accepted, that

Dr. Smith's conclusion was unsubstantiated and baseless, Dr. Young continued to assert that Dr. Smith's opinion in Nicholas' case fell within a reasonable range. In essence, the thrust of Dr. Young's responses was to defend the pathologist that he and others at the OCCO had touted for so long.

Dr. Smith's reaction to the complaints made against him was no better. As with the complaint in Amber's case, he responded by denying that he had done anything wrong. He responded not only by emphasizing the reasons for his opinion, but by telling the CPSO that he had never received some of the relevant materials from the coroner or police (though he had), and by claiming that he was not involved in any way with the CAS (though he clearly was). Like Amber's case, Nicholas' case presented a prime opportunity for the OCCO and the CPSO to re-evaluate Dr. Smith's prominent status. Unfortunately, that opportunity was also lost.

As the decade unfolded, there would be more lost opportunities.

Jenna's Case

On January 21, 1997, at approximately 5:00 p.m., Brenda Waudby left her 21-month-old daughter Jenna and Jenna's sister in the care of J.D., a 14-year-old boy who lived in an upstairs apartment in Peterborough, Ontario. Just after midnight, at 12:30 a.m., J.D. realized that Jenna had stopped breathing. J.D.'s mother called 911, and an ambulance brought Jenna to Peterborough Civic Hospital. At the hospital, an emergency physician noticed some signs of a possible sexual assault, including possible rectal stretching, tears in the little girl's vulva, and a curly hair in her vulva area. Jenna died at 1:50 a.m.

Jenna's body was transported to the OPFPU at SickKids. Dr. Smith performed the autopsy, but did not conduct a complete sexual assault examination. Although he examined Jenna's vaginal area externally, he did not take any swabs. And although he collected a hair from Jenna's vaginal area, he did not submit it for forensic analysis.

Jenna had severe injuries to her abdomen. After the autopsy, Dr. Smith told Constable Scott Kirkland, the forensic identification officer who attended the autopsy, that Jenna had suffered a blow with a blunt object, causing a rupture to her duodenum, pancreas, and liver. There was no evidence that the injuries had begun to heal, so Dr. Smith opined that they occurred within a few hours of death. His opinion later changed, however, after he viewed the tissues under the microscope. In February 1997, Dr. Smith told the police that all of Jenna's injuries occurred within 24 hours of her death. And in July 1997, he advised that Jenna had suffered multiple rib injuries, likely sustained five to seven days

before her death. Ultimately, the police understood Dr. Smith's opinion to be that the injuries responsible for Jenna's death could have occurred some 24 hours before death.

Jenna had been in the care of her mother, not J.D., 24 hours before her death. Thus, on September 18, 1997, the police arrested and charged Ms. Waudby with second-degree murder. At this time, she gave a statement to the police and admitted that she had hit Jenna two days before her death. The CAS apprehended Jenna's older sister from Ms. Waudby's care.

Ms. Waudby's preliminary hearing took place in October 1998. Dr. Smith testified on behalf of the Crown. He told the court that there was no physical evidence to suggest that Jenna had been sexually abused. When directed to the hospital emergency record, which documented the emergency physician's observation of a curly hair in Jenna's vulva area, Dr. Smith made no mention of the hair that he had seized from Jenna's vaginal area and denied any knowledge of a pubic hair found on Jenna's body at the autopsy. During the preliminary hearing, Dr. Smith also gave his opinion on the timing of Jenna's fatal injuries. His testimony, although extremely confusing on many points, left the clear impression that Jenna's injuries occurred approximately 24 or 28 hours before her death. The preliminary hearing judge committed Ms. Waudby to stand trial on the charge of second-degree murder.

In November 1998, Ms. Waudby's lawyer, James Hauraney, consulted Dr. Sigmund Ein, a staff surgeon at the Division of General Surgery at SickKids, on the timing of Jenna's fatal injuries. Dr. Ein concluded that Jenna had suffered her fatal injuries on the evening of her death. This timing was significant because it pointed to J.D., not Ms. Waudby, as the perpetrator. In December 1998, Dr. Ein spoke with Dr. Smith. Contrary to the evidence he had given at the preliminary hearing only two months earlier, Dr. Smith agreed with Dr. Ein. However, when Mr. Hauraney asked Dr. Smith to confirm his statement in writing, Dr. Smith did not respond.

Four months later, in April 1999, Dr. Ein hosted a meeting with the police, Crown counsel, Mr. Hauraney, and Dr. Smith. During the meeting, Dr. Ein opined that Jenna's injuries were inflicted after 5 p.m. on the evening of her death. Again, contrary to what he had told the police and the court, Dr. Smith agreed. Therefore, both experts now suggested that Jenna was in the care of J.D. and not Ms. Waudby when she suffered her injuries.

Mr. Hauraney sought further opinions from a pediatric surgeon, a pediatrician, and a forensic pathologist. Each agreed with Dr. Ein. Jenna would not have appeared normal immediately after sustaining her injuries. Therefore, they must have been inflicted after Ms. Waudby handed her over to J.D.

On receiving the opinions of the defence experts, on May 10, 1998, the Crown Attorney's office consulted with Dr. Bonita Porter, the Deputy Chief Coroner (Inquests) at the OCCO, for clarification on the timing of Jenna's fatal injuries. On May 26, 1999, Dr. Porter produced her report. Like the others, Dr. Porter concluded that Jenna's injuries were inflicted shortly – less than six hours – before her death.

As a result, on June 15, 1999, the Crown withdrew the second-degree murder charge against Ms. Waudby. Crown counsel acknowledged to the court that the medical evidence could no longer substantiate that Ms. Waudby had care of Jenna at the time she sustained her fatal injuries.

Several days before the withdrawal of the criminal charge, however, Ms. Waudby had pleaded guilty to a charge of child abuse under the *Child and Family Services Act*, RSO 1990, c. C.11. The plea was in relation to an incident that occurred one to three weeks before Jenna's death, as evidenced by Jenna's old rib injuries, and it served, in part, as the basis for the continued involvement of the CAS.[3] Ultimately, in July 1999, a Family Court judge ordered that Jenna's sister be returned to Ms. Waudby's care but that Ms. Waudby's son, born on May 1, 1999, remain in the care of his father, with access granted to Ms. Waudby.

Like S.M.'s father, D.M., and Mr. Gagnon, Ms. Waudby had concerns over Dr. Smith's conduct, and she tried to raise them with anyone who might have the authority to hold him accountable. In December 1999, Ms. Waudby's counsel wrote, on her behalf, to the premier of Ontario, the Attorney General of Ontario, the Solicitor General of Ontario, the minister of community and social services, and Ms. Waudby's local member of the legislature, requesting a public inquiry into the matter. In May 2001, Ms. Waudby asked the federal minister of justice for a public inquiry. Also in May 2001, Ms. Waudby filed a complaint against Dr. Smith with the CPSO, alleging that Dr. Smith had failed to perform an adequate sexual assault examination, had lost a hair collected from Jenna's body at the autopsy, and had failed to provide an accurate opinion on the timing of Jenna's injuries.

About the same time, in July 2001, the chief of the Peterborough Lakefield Community Police Service assigned Detective Constable (now Sergeant) Larry Charmley to review the previous investigation into Jenna's death. Detective Constable Charmley learned from Mr. Hauraney that a possible sexual assault might have been overlooked and that a hair noted in Jenna's vaginal area was missing.

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[3] The pathology evidence that formed the basis of the child abuse plea could not be confirmed upon review by Dr. Pollanen. This is discussed in Chapter 8, Dr. Smith and the Practice of Pediatric Forensic Pathology.

In October 2001, when Detective Constable Charmley spoke with Dr. Smith, the police learned that Dr. Smith had collected a hair from Jenna's body and that he had arranged for an expert on sexual abuse in children to examine Jenna during her post-mortem examination. Dr. Smith stated that he and the sexual abuse expert had agreed that there was no evidence of sexual abuse. Dr. Smith also claimed that the officer present at the autopsy did not believe that the hair was relevant and necessary to seize. In November 2001, Detective Constable Charmley retrieved the hair from Dr. Smith's office. It was in a sealed envelope labelled, "hair from pubic area." A seal on the envelope indicated that the contents were seized from Jenna's autopsy.

The police eventually submitted the hair for testing to both the Centre of Forensic Sciences (CFS) in Toronto and the Federal Bureau of Investigation (FBI) laboratory in Washington, DC. The CFS reported that it was not able to do a DNA analysis because the hair did not have a root. In addition, in part because of the length of time between Jenna's autopsy (when the hair was first collected) and the forensic analysis, microscopic comparison was of little or no value. In short, Dr. Smith's decision to seize the hair but not to submit it for analysis directly affected the forensic significance of the evidence. The FBI laboratory was, however, able to rule out both Ms. Waudby and J.D. as the source of the hair based on a mitochondrial DNA analysis.

Between 2001 and 2005, two parallel investigations took place. The CPSO investigated Ms. Waudby's complaint. As in Amber's and Nicholas' cases, Dr. Smith's responses to the investigation lacked candour. He made false or misleading statements to the CPSO, as well as to Dr. Cairns, alleging, among other things, that he had performed an adequate sexual assault examination; that he had collected a hair from Jenna's body and offered it to the forensic identification officer, who refused it; that he had kept the hair anyway and that he had brought the rejected item with him to the preliminary hearing in October 1998. No matter how preposterous and contradictory these explanations now sound, in the early 2000s, they worked. The CPSO believed him – and even commended him for seizing and retaining the hair despite the police officer's alleged rejection of it.

In the meantime, the police continued their investigation into the real perpetrator of Jenna's injuries. Together with the OCCO they consulted several more experts about Jenna's injuries, including a pediatrician, two pediatric surgeons, a forensic pathologist, and a forensic odontologist. The forensic pathologist was Dr. Pollanen, who by then was working at the Provincial Forensic Pathology Unit. He and the clinicians agreed that Jenna sustained her fatal injuries in the few hours before her death. Dr. Smith's evidence at the preliminary hearing, that Jenna had suffered her injuries 24 or 28 hours before death, was therefore wrong.

The police determined that the new medical opinions provided stronger grounds to believe that Jenna received her fatal injuries while in the care of J.D. As a result, the police used an undercover officer to befriend J.D. In November 2005, J.D. confessed to punching, poking, and sexually assaulting Jenna on the night of her death. In December 2005, the police charged him with second-degree murder and two counts of sexual assault. In December 2006, J.D. pleaded guilty to manslaughter. He was ultimately sentenced as a youth to 22 months of incarceration followed by 11 months of community supervision.

Sharon's Case

Another danger signal arose when Sharon died in Kingston, Ontario, in June 1997, five months after Jenna had died. She was seven-and-a-half years old. On June 12, 1997, at approximately 9:30 p.m., a neighbour reported Sharon missing. Members of the Kingston Police Service searched her home and found her dead, in the basement of her home. She had obviously been savagely attacked. Her body displayed dozens of penetrating wounds. A large wound was visible on the back of her head, and a big piece of her scalp lay near her partially clad body. The officers noticed a strong smell of animal urine and feces in the basement. The only dog present in Sharon's home when the officers found Sharon was a small dog belonging to Sharon's family.

On June 13 and 15, 1997, Dr. Smith performed the post-mortem examination at the OCCO in Toronto. At the time, he had very little experience with penetrating wounds, having seen only one or two cases involving stab wounds and one or two other cases involving dog bites. He performed the autopsy anyway. At the conclusion of the examination, Dr. Smith told the police that the cause of death was exsanguination secondary to multiple stab wounds.

A day or two later, the police learned that, in addition to the small dog the officers had seen in Sharon's home, a pit bull dog belonging to a neighbour had also been present in her home the day Sharon died. In the course of their investigation, the police discovered important information about the pit bull that suggested it might have played a part in Sharon's death: the dog had a red substance on its paws and chest when its owner picked it up from Sharon's house at 8:30 p.m. on the night of her death, its feces may have contained blond hair in the days following Sharon's death, and there was blood on the dog's collar and hair. In August 1997, the pit bull was euthanized for an unrelated incident of nipping and biting, and its head was destroyed.

Shortly after the police learned about the pit bull, an officer phoned Dr. Smith about concerns with some of the markings to Sharon's upper back. Dr. Smith defin-

itively told the officer that a domestic or wild animal had not caused the marks. Nine days later, the police arrested and charged Sharon's mother, Louise Reynolds, with second-degree murder. The police and the Crown theory was that Ms. Reynolds had killed Sharon in a fit of rage over Sharon's head-lice problem. Ms. Reynolds was in custody without bail for 22 months, from June 1997 to April 1999.

Ms. Reynolds denied that she had killed Sharon. The defence theory was that Sharon had been attacked by the pit bull and that Sharon's injuries were therefore bite marks, not stab wounds. To respond to the defence's suggestion, and at the recommendation of the regional coroner, the Crown sought an opinion from a forensic odontologist, Dr. Robert Wood. Dr. Wood reviewed the autopsy photographs and produced a consultation report in February 1998. He opined that the markings on Sharon's body were, "without equivocation," not dog bite marks.

After repeated requests to Dr. Smith for his report, and even the issuance of a subpoena to oblige him to attend court and to produce it, he finally provided his report of post-mortem examination to the Crown on March 8, 1998, nine months after completing the post-mortem examination. As he had previously indicated to the police, he concluded in his report that Sharon had died of multiple stab wounds.

Meanwhile, the defence retained its own forensic odontologist, Dr. Robert Dorion. On April 4, 1998, Dr. Dorion prepared a brief report based on his review of the autopsy photographs. His opinion directly contradicted Dr. Wood's. He opined that there were more than 20 bite marks on Sharon's body, and that those marks were caused by a powerful animal – most likely a dog.

Ms. Reynolds' preliminary hearing commenced shortly afterwards. It took place over 15 days, from April 1998 to November 1998. Dr. Wood did not testify, but Dr. Smith did. He told the court, unequivocally, that Sharon had suffered multiple stab wounds, and he suggested scissors as a possible weapon. He categorically denied suggestions by defence counsel that a dog had attacked Sharon, saying dismissively, "As absurd as it is to think that a polar bear attacked Sharon, so is it equally absurd that it's a dog wound." On November 19, 1998, the preliminary hearing judge committed Ms. Reynolds to stand trial on the charge of second-degree murder.

In February 1999, at a meeting of the American Academy of Forensic Sciences, Dr. Cairns and Dr. Young learned that four respected experts – Dr. Dorion, Dr. Michael Baden (a forensic pathologist), Dr. James (Rex) Ferris (a forensic pathologist), and Dr. Lowell Levine (a forensic odontologist) – strongly disagreed with Dr. Smith's conclusion in Sharon's case. The experts believed that Sharon was killed during a dog attack, and they expressed concern that a miscarriage of justice might be occurring in Kingston. Their remarks impressed Dr. Young and Dr. Cairns because these experts were "heavy hitters."

After the February 1999 meeting, Dr. Cairns met with Dr. Smith, Dr. Wood, and Dr. Chiasson. Dr. Wood and Dr. Smith continued to maintain that a dog was not responsible for any of Sharon's wounds. Nonetheless, all four agreed that an exhumation and second autopsy would be needed to rule out any involvement by a dog.

In July 1999, Sharon's body was exhumed. Dr. Chiasson performed a second autopsy at the OCCO in Toronto. Dr. Smith, Dr. Wood, Dr. Dorion, and Dr. Ferris, who had been retained by the defence, attended the autopsy. The OCCO's experts, Dr. Wood, Dr. Chiasson, and Dr. Smith, all produced reports following the second post-mortem examination. Dr. Wood and Dr. Smith revised their initial opinions. However, all three opinions were similar: a dog had caused at least some of Sharon's injuries, but it was still possible that a weapon caused some others. In particular, there were some marks on Sharon's skull and neck that Dr. Wood and Dr. Smith opined could not be explained by a dog attack.

The defence experts disagreed. From May to August 2000, Crown counsel Ed Bradley received two reports from Dr. Ferris, who criticized Dr. Smith's methodology and his conclusions. In Dr. Ferris' view, Sharon died as a result of a dog attack and, contrary to the assertions of Dr. Smith and Dr. Wood, all of her injuries could be explained by such an attack.

Faced once again with conflicting expert opinions, the OCCO sought an independent opinion. Dr. Young and Mr. Bradley agreed to have an out-of-province expert review the autopsy materials and provide an opinion on the cause of Sharon's death. In September 2000, the OCCO retained Dr. Steven Symes, a leading forensic anthropologist from the University of Tennessee. About the same time, Dr. Smith and Dr. Wood met with Crown counsel and the police. The two experts continued to maintain that some of Sharon's wounds could not be explained by a dog attack.

Dr. Symes produced his report in early December 2000. He concluded that most of the injuries were definitely caused by a dog attack, but that some fresh cut marks on the skull appeared to have been caused by a scalpel or sharp knife. When asked about these markings, Barry Blenkinsop, the Chief Pathologist Assistant at the OCCO, who assisted at Sharon's initial autopsy, insisted that they were not caused during the initial autopsy.

Later in December, Mr. Bradley spoke with Dr. Cairns, who was now skeptical of Dr. Smith's conclusion. In January 2001, Mr. Bradley again spoke to Dr. Smith. For the first time, Dr. Smith acknowledged that he could not dispute the evidence offered by the defence experts. However, he still believed that his opinion – that some injuries were not attributable to a dog attack – was correct.

On January 25, 2001, after receiving the reports from Dr. Ferris and Dr. Symes,

and speaking with Dr. Smith, the Crown withdrew the charge of second-degree murder against Ms. Reynolds. In withdrawing the charge, Crown counsel informed the court that it no longer had proof that the death was caused by stab wounds. Without that proof, the Crown had no reasonable prospect of conviction.

Dr. Smith's errors in Sharon's case were basic. He lacked the forensic pathology training and experience required to assess properly Sharon's penetrating wounds. Yet he took the case on anyway. The results were catastrophic. He turned what forensically qualified experts say are clearly dog bites into something much more sinister. Dr. Smith's misdiagnosis in Sharon's case might have been prevented if he had had the appropriate training and expertise in forensic pathology, or if he had consulted with someone with such a background.

There was much media attention in late January 2001 surrounding the termination of the criminal proceedings against Ms. Reynolds. Indeed, from the fall of 1999 on, Dr. Smith's mistakes had begun to attract significant media attention. On November 10, 1999, CBC television's investigative series *the fifth estate* critically examined his work in the cases of Amber, Nicholas, and Sharon. And on May 14, 2001, *Maclean's* magazine outlined the questions raised about Dr. Smith in an article entitled, "Dead Wrong."

In late January 2001, along with the withdrawal of the charge against Ms. Reynolds, two more events attracted media attention. On January 22, 2001, three days before the withdrawal of the charge against Ms. Reynolds, the Crown in another case involving Dr. Smith, Tyrell's case, stayed the criminal proceedings against the boy's caregiver. The defence in Tyrell's case had obtained opinions from three prominent experts that directly contradicted Dr. Smith's opinion in the case. By then, all this attention had led Dr. Young to conclude not that Dr. Smith's work had been flawed, but that he had become such a "lightning rod" that he should not continue to do autopsies for the OCCO. Thus, on January 25, 2001, at Dr. Young's insistence, Dr. Smith requested that he be excused from the performance of coroner's autopsies and that an external review be conducted into his work.

After a decade of inaction, Dr. Smith's errors and the attention they had attracted finally caused the leadership at the OCCO to act, but only tentatively. Dr. Young concluded that Dr. Smith should no longer perform autopsies in criminally suspicious cases and homicides. He also proposed an external review of Dr. Smith's cases to assess his competence. Dr. Young told the media and the Ministry of the Attorney General that the OCCO would undertake such a review. But before the external review could get off the ground, Dr. Young reconsidered the idea. Although Dr. Young decided as early as February 2001 that no external review was to be conducted, his actions and those of Dr. Cairns caused

significant confusion and misunderstanding among both stakeholders in the criminal justice system and the public at large about whether a review was being undertaken, and, if so, what its extent would be. In addition, despite these growing concerns about Dr. Smith's professional competence, Dr. Young allowed Dr. Smith to remain director of the OPFPU and to carry with him the reputation that the position entailed.

It took more mistakes by Dr. Smith and the appointment of a new Chief Coroner, Dr. McLellan, before Dr. Smith would finally be forced to resign from his position in July 2004. The full review into his work in criminally suspicious cases and homicides was called in June 2005, but not before Dr. Smith's work harmed two more cases: Athena's case and Valin's case.

Athena's Case

In June 2003, another trial judge dealt a blow to public confidence in the practice of pediatric forensic pathology in Ontario. In staying the charges of first-degree murder against Athena's parents, Justice W. Brian Trafford of the Ontario Superior Court of Justice condemned Dr. Smith's conduct in Athena's case. The concern raised was not in relation to a misdiagnosis but rather to Dr. Smith's complete disregard for the needs of the criminal justice system and, more specifically, his considerable delays in producing an addendum to his report of post-mortem examination, which was urgently needed by the criminal justice system.

On March 6, 1998, Athena died in Toronto at the age of three months. Dr. Smith performed the autopsy the next day. He waited six weeks before submitting samples taken from the autopsy to the CFS for analysis. The CFS in turn took five months to complete its report. Dr. Smith produced his report of post-mortem examination one month after that, and Athena's father was charged with manslaughter. There was thus a seven-and-a-half-month delay between the autopsy and the production of Dr. Smith's report on October 26, 1998.

Dr. Smith's delay in submitting the samples was not the most troubling aspect of his conduct in the case, however. Many months later, in July 1999, Dr. Smith told the police and Crown counsel that the liver injury likely took place within 12 hours of Athena's death. Athena's parents had told the police that they were with Athena during the entire 24-hour period before her death. In light of Dr. Smith's opinion on the timing of the liver injury, the police believed they had reasonable and probable grounds to charge both parents with second-degree murder. But they wanted Dr. Smith's opinion in writing. Shortly after the meeting, the police asked Dr. Smith to prepare an addendum to his initial report, outlining his opinion on the timing of Athena's injuries.

Dr. Smith failed to produce the requested addendum. In the fall of 1999, an officer phoned Dr. Smith on numerous occasions, requesting the report, but he continued to delay. In the winter of 2000, an officer and Crown counsel sent letters to Dr. Smith, formally requesting the report and stressing that it was urgently needed. Still, Dr. Smith delayed. Finally, in April 2000, on the very day that the police issued a subpoena for the production of his addendum, Dr. Smith produced a one-and-a-half-page letter outlining his opinion. That was eight-and-a-half months after the initial request.

Ultimately, on June 23, 2003, Justice Trafford stayed the proceedings against Athena's parents on the basis that the overall delay violated their *Charter* right to be tried within a reasonable time. The Crown appealed. On April 15, 2005, the Court of Appeal for Ontario dismissed the appeal. The Court found, among other things, that the failings of Dr. Smith caused the matter to be delayed for the better part of two years. Thus, the concerns with Dr. Smith's work were not limited to misdiagnoses and overstated opinions. They included a complete dereliction of his duties as an expert to assist the OCCO and serve the criminal justice system.

Valin's Case

The events in Valin's case that are most relevant to this story of growing concerns took place in 2003 and later, after Dr. Smith's removal from the roster for coroner's autopsies. However, it is helpful to provide an overview of the case from its beginning, a decade earlier.

Valin died in June 1993, at the age of four, in Sault Ste. Marie, Ontario. On the evening of June 26, 1993, Valin's parents left Valin and her brother in the care of their uncle, William Mullins-Johnson. They did not check on her when they returned late that night. The next morning, at approximately 7 a.m., Valin's mother found Valin in bed, face down and on her knees. She called 911. Ambulance attendants arrived at the scene and concluded that Valin was already dead.

On June 27, 1993, a pathologist at a local Sault Ste. Marie hospital, Dr. Bhubendra Rasaiah, performed the autopsy. Because he had concerns that Valin might have been sexually abused, Dr. Rasaiah asked Dr. Patricia Zehr, a gynecologist-obstetrician with a specialty in child abuse, to examine her. Dr. Zehr concluded that there was evidence of chronic sexual abuse. That day, the police arrested and charged Mr. Mullins-Johnson with first-degree murder and aggravated sexual assault.

Dr. Rasaiah issued his report of post-mortem examination on July 13, 1993. Among other things, he reported that Valin had a dilated vaginal opening and a

markedly dilated rectal opening. He concluded that Valin had died of cardiorespiratory arrest due to asphyxia. Dr. Rasaiah also consulted the director of SCAN at SickKids, who asked Dr. Smith for his assistance. She and Dr. Smith reviewed the autopsy photographs and wrote a joint consultation report. In this report of August 6, 1993, they observed that Valin's anus was gaping with a large opening, that there were fissures inside the anus, and that there was bruising to Valin's face and chest. They concluded that Valin had likely died of asphyxia, resulting from chest or abdominal compression, and that Valin had suffered anal penetration by a round, blunt object.

Mr. Mullins-Johnson's trial took place in September 1994. Four pathologists testified: Dr. Rasaiah and Dr. Smith for the Crown, and Dr. Frederick Jaffe and Dr. Ferris for the defence. To sustain a conviction for first-degree murder, the Crown had the burden of proving that Mr. Mullins-Johnson caused Valin's death while committing a sexual assault. The Crown's theory was that Valin was the victim of chronic sexual abuse and had died during a sexual assault at a time when she was being cared for by Mr. Mullins-Johnson. The key pathology issues were thus the time of death, the cause of death, and whether there was evidence of sexual abuse.

Dr. Smith did not offer a specific opinion on the time of Valin's death. In his view, the pathology evidence could not substantiate a specific time period. With respect to the cause of death, Dr. Smith testified that Valin had died of asphyxia, possibly due to manual strangulation. He also told the court that he had found evidence of recent sexual abuse: he had observed, microscopically, one "fresh" laceration in the cells that line the anal-rectum region.

The other pathologists agreed, to varying degrees, with Dr. Smith's opinion. However, unlike Dr. Smith, none of them saw an acute injury that would suggest that the sexual abuse had occurred at or just before death. Dr. Jaffe saw some old damage, and Dr. Ferris opined that anal penetration might have occurred eight to 18 hours before death.

On September 21, 1994, a jury convicted Mr. Mullins-Johnson of first-degree murder. He was sentenced to life in prison with no eligibility for parole for 25 years. Mr. Mullins-Johnson appealed to the Court of Appeal for Ontario. On December 19, 1996, the Court dismissed the appeal. Justice Stephen Borins dissented, which gave Mr. Mullins-Johnson the right to appeal to the Supreme Court of Canada. The Supreme Court heard and dismissed Mr. Mullins-Johnson's appeal on May 26, 1998.

In February 2003, James Lockyer, on behalf of the Association in Defence of the Wrongly Convicted (AIDWYC), wrote to the Crown Law Office, requesting the microscopic slides and tissue blocks from which the slides were made to allow

Dr. Bernard Knight, a forensic pathologist, to review Valin's case. Arising out of that request, in May 2003 the police contacted Dr. Rasaiah about the materials. Dr. Rasaiah determined from his records that he had sent the slides and blocks from Valin's autopsy to Dr. Smith in June 1994, and that they had never been returned. In June 2003, Dr. Rasaiah phoned Dr. Smith about the matter. Dr. Smith indicated that he would look for the materials.

When Dr. Smith did not respond further on the matter, Dr. Rasaiah phoned him a second time in October 2003. This time, he left a message. As before, Dr. Smith did not respond. Two weeks later, Crown counsel Philip Downes became involved. He wrote to Dr. Smith, indicating that defence counsel was looking into the conviction of Mr. Mullins-Johnson and wanted access to the autopsy materials from Valin's case. He asked Dr. Smith to inform him whether he knew the whereabouts of the material. Still, Dr. Smith did not reply.

Mr. Downes did not give up. In December 2003, he spoke with Dr. Smith on the phone. Dr. Smith told him that his assistant had searched unsuccessfully for the materials in the SickKids archives. Dr. Smith did not believe that he still had the slides and blocks, but he told Mr. Downes that he would take another look later that week. Mr. Downes asked Dr. Smith to confirm in writing his position on the whereabouts of the materials, and Dr. Smith agreed. Despite his agreement, Dr. Smith never responded, either verbally or in writing.

Still, Mr. Downes did not give up. In January and March 2004, Mr. Downes wrote to Dr. Smith two more times, requesting that Dr. Smith confirm in writing his position on the whereabouts of the materials. Mr. Downes even sent his March 2004 letter by registered mail. Despite Mr. Downes' efforts, Dr. Smith did not respond.

Finally, in November 2004, Mr. Downes contacted Dr. McLellan, who had recently been appointed Chief Coroner, and requested the OCCO's assistance in determining the whereabouts of the materials. Dr. McLellan acted quickly to investigate Mr. Downes' request. On November 26, 2004, Dr. Cairns and the OCCO executive officer, Dorothy Zwolakowski, attended SickKids to discuss the issue with Dr. Smith. Dr. Smith first denied any knowledge of the case, and then he was adamant that he did not have the materials. He even told Dr. Cairns that he had personally gone to the post office some time in the 1990s to send the materials back to Dr. Rasaiah. Not satisfied, Dr. Cairns asked Maxine Johnson, a senior administrative assistant at SickKids, to assist in the search for the materials. After the meeting, Ms. Johnson and Ms. Zwolakowski searched Dr. Smith's office and discovered a couple of slides from Valin's autopsy. Three days later, on November 29, 2004, Ms. Johnson found 20 more slides on a shelf in Dr. Smith's office. Contrary to what Dr. Smith had told the Deputy Chief Coroner, it was clear that he had never returned the materials to Dr. Rasaiah.

This sequence of events is disturbing. Dr. Smith received and ignored request after request for the autopsy materials from a case he had reviewed and in which a man was in prison for first-degree murder. The materials were found in his own office almost 18 months after the first unanswered request. The case raises serious concerns about the storage and retention of autopsy materials and, more important, about Dr. Smith's disregard for the needs of the criminal justice system.

Fortunately, Dr. McLellan and Dr. Pollanen recognized the urgency and significance of the Crown's request. Their quick and thoughtful action to find the needed evidence in Valin's case ultimately assisted in the acquittal of Mr. Mullins-Johnson in 2007. Events unfolded quickly after the discovery of the material in November 2004. Dr. McLellan asked Dr. Pollanen to catalogue the 20 or so slides that had been located. In doing so, Dr. Pollanen concluded that the slides had clearly been misinterpreted and, in sharp contrast with the experts' evidence at Mr. Mullins-Johnson's trial, that the anus and vagina were essentially normal. Alarmed by this discovery, Dr. Pollanen raised his concerns with Dr. McLellan. Ultimately, the OCCO and the Crown decided to provide Dr. Pollanen with all the necessary materials and asked him to prepare a full report.

On January 19, 2005, Dr. Pollanen produced his first report on the case. He concluded that the cause of death was unascertained and that there was no evidence of penetrating trauma. Dr. Smith had misinterpreted what were in reality post-mortem artefacts for injury when he told the court in 1994 that Valin had died of strangulation and that she had been sexually assaulted.

After they provided Dr. Pollanen's first report to the Crown, the OCCO leadership concluded that an innocent man was sitting in jail. According to Dr. Cairns, at this juncture, for the first time, they seriously considered the prospect of a complete external review of Dr. Smith's work. As a result, the OCCO assisted the Crown with respect to Valin's case and finally dealt head on with concerns about Dr. Smith's work.

In mid-February 2005, the Crown asked the OCCO for the names of forensic pathologists who could review Valin's case. Dr. Pollanen prepared a list of possible candidates whom he considered among the best forensic pathologists.

Moreover, as a result of the OCCO's concerns about the way Dr. Smith stored and catalogued autopsy materials, on March 31, 2005, Dr. McLellan announced that the OCCO would audit all tissue samples from homicides and criminally suspicious cases that had been conducted at SickKids since 1991 (the "Tissue Audit"). The OCCO sought not only to ensure that slides, blocks, and tissues could be accounted for but to restore public confidence in the OCCO's ability to maintain control of exhibits and materials from autopsies.

Seventy cases were identified as falling within the scope of the Tissue Audit. During the audit, Ms. Johnson and Ms. Zwolakowski found some unusual items in Dr. Smith's office. Importantly, on May 6, 2005, they discovered 28 paraffin tissue blocks and 10 more microscopic slides from Valin's case in Dr. Smith's office. Shortly thereafter, Dr. Pollanen reviewed these materials and completed a supplementary report. He again concluded that the cause of Valin's death was unascertained and determined that the findings in the anal-rectal tissue were post-mortem artefact.

On June 7, 2005, Dr. McLellan made two announcements. In the first, he gave the results of the Tissue Audit and indicated that 70 cases had been identified and audited. Dr. Smith had been the pathologist in 40 of these 70 cases. With some minor exceptions, the slides and tissues were accounted for in all 70 cases, including Valin's case. In those few cases where microscopic slides could not be located, tissue blocks had been found that could allow new slides to be prepared. Second, and more important, Dr. McLellan announced that the OCCO would conduct a formal review of the work of Dr. Smith in the 40 cases identified in the Tissue Audit. In short, Dr. McLellan implemented a review process that would confront squarely the serious questions about Dr. Smith's work.

In July 2005, Dr. McLellan sent the slides and blocks from Valin's case to Dr. Knight, who completed his report the following month. Dr. Knight agreed with Dr. Pollanen and concluded that there was nothing in the histological material to support the infliction of any anal trauma. In early September 2005, Dr. Pollanen and OCCO counsel met with AIDWYC to discuss his findings in the case.

Shortly after the meeting, on September 7, 2005, Mr. Mullins-Johnson filed an application for ministerial review pursuant to Part XXI.1 of the *Criminal Code*. The Attorney General of Ontario wanted an independent review of Dr. Pollanen's opinion, and on September 14, 2005, the OCCO sought the opinions of Dr. Jack Crane, Dr. Christopher Milroy, and Dr. John Butt, three leading authorities on forensic pathology. On September 21, 2005, 11 years after his conviction, Mr. Mullins-Johnson was granted bail pending his application.

Mr. Lockyer gave Dr. Ferris an opportunity to reconsider the case. In December 2005, Dr. Ferris provided a report to Mr. Lockyer. He abandoned his original conclusions and acknowledged that there was no evidence to determine either the cause or the time of Valin's death, and no evidence that she had been the victim of sexual abuse. Between May and September 2006, Dr. Crane, Dr. Milroy, and Dr. Butt also issued their reports on the case. These international experts found what Dr. Pollanen had found: Dr. Smith had misinterpreted post-mortem changes for injury. All three agreed that the cause of Valin's death was undetermined and that there was no evidence of sexual abuse.

In 2007, events moved quickly on the case. On April 27, the Attorney General of Ontario called publicly for an acquittal of Mr. Mullins-Johnson. On July 17, the federal minister of justice granted Mr. Mullins-Johnson's application for ministerial review and referred the case to the Court of Appeal for Ontario. On October 19, that Court allowed the appeal, quashed Mr. Mullins-Johnson's conviction for first-degree murder, and entered an acquittal.

The Chief Coroner's Review

In April 2005, shortly after the announcement of the Tissue Audit, AIDWYC wrote to Dr. McLellan and the Attorney General of Ontario, requesting a full public inquiry into the work of Dr. Smith. AIDWYC cited continuing concerns over Dr. Smith's work as the reason for its request. By this time, there had been significant media coverage of many of the cases in which Dr. Smith had played a key role, including the cases involving Amber, Nicholas, Jenna, Tyrell, Sharon, Athena, and Valin.

Dr. McLellan believed that, notwithstanding the positive results of the Tissue Audit, a formal review was needed to maintain public confidence in the OCCO's work. In an act of courage, Dr. McLellan decided that the OCCO would conduct a full external review of Dr. Smith's work.

In his June 7, 2005, press release, Dr. McLellan announced the "Chief Coroner's Review." He stated that the OCCO was aware of concerns about conclusions reached in a number of cases where Dr. Smith was the primary or the consulting pathologist. He said that, to maintain public confidence, pathologists external to the OCCO would conduct a formal review of all the criminally suspicious cases since 1991 in which Dr. Smith had conducted the autopsy or provided a consultation opinion. The purpose of the review was to ensure that the conclusions reached by Dr. Smith were reasonably supported on the materials available.

On November 1, 2005, Dr. McLellan provided more details on the format of the Chief Coroner's Review, including both the criteria to be applied by the expert reviewers and the materials subject to the Review. He indicated that the OCCO had selected 44 cases and provided the names of four external pathologists who would form the Review Panel. He estimated that the entire Review would be completed within one year.

As events unfolded, the Chief Coroner's Review took on a slightly different form from that announced by Dr. McLellan in June and November 2005. Another reviewer was added. A total of 45 of Dr. Smith's cases were selected by the OCCO for review, 35 cases were reviewed by the five external pathologists, and 10 cases were reviewed by two Ontario pathologists.

The 45 cases met three criteria: they were criminally suspicious or homicide cases; they dated (with one exception)[4] from 1991, the year in which the OPFPU was created, to 2001, the year in which Dr. Smith stopped performing criminally suspicious autopsies; and, finally, they were cases in which Dr. Smith had performed the autopsy or had been consulted.

The OCCO identified cases that met these criteria with the assistance of the Ministry of the Attorney General and various police services. The initial 40 cases identified by Dr. McLellan in his June 2005 announcement were ascertained through the Tissue Audit. That number increased to 43 by July 2005, to 44 by November 2005, and to 45 by the end of the Chief Coroner's Review. The five additional cases were ones in which Dr. Smith had not performed the initial autopsy, but had been consulted as an expert.

On April 19, 2007, Dr. McLellan announced the results of the Chief Coroner's Review. He announced that, in 20 of the 45 cases, the Chief Coroner's Review pathologists took issue with Dr. Smith's opinion, as expressed in his report or his testimony, or both. Those 20 cases formed much of the factual background examined by this Inquiry, with 18 of them coming under particularly close scrutiny. Ultimately, therefore, the material reviewed and the results reached during the Chief Coroner's Review created much of the factual basis for our work.

The Review Parameters

In his June 7, 2005, announcement, Dr. McLellan indicated that the format of the Chief Coroner's Review would be determined after consultation with the Forensic Services Advisory Committee (FSAC). The FSAC is a multidisciplinary committee made up of representatives from the OCCO, the CFS, the Crown, the police services, criminal defence lawyers, and forensic pathologists. The committee was critically important in the determination of the scope and process of the Review and the material to be used by the Review Panel.

On November 1, 2005, Dr. McLellan announced that the materials to be reviewed would include Dr. Smith's autopsy or consultation reports; the coroner's warrant for autopsy; any other autopsy or consultation reports arising from the investigation; photographs from the autopsy and the death scene; microscopic slides and any other pathologic materials; police reports; reports of the CFS; and court transcripts.

[4] Amber's case did not fit into the inclusion criteria. Amber's case dated back to 1988, but was selected for review because it had been the subject of significant public attention.

The materials that were eventually provided to the reviewers came from three sources: the OCCO, the Ministry of the Attorney General, and SickKids. Although it was agreed that, in all cases, Dr. Smith's report, photographs, and transcripts would be included in the Review package, the decision of whether other materials ought to be included was left for determination on a case-by-case basis.

The final autopsy report review form asked the Review Panel questions that fell into five categories. The expert reviewers were asked whether or not Dr. Smith's

1 report of post-mortem examination provided adequate descriptions of the external examination, the injuries, and any natural disease;
2 description and/or interpretation of the injuries provided in the report reasonably matched the photographs and the histology evidence;
3 testimony, when applicable, was reasonable and balanced;
4 testimony on cause of death, when applicable, was the same as that provided in his report; and
5 opinion on the cause of death was independently reviewable and was reasonable based on the available information.

The form gave the expert reviewers the option of answering, Yes, No, or N/A to each of these questions. It also included room for narrative comments.

The Review Panel

The FSAC discussed the selection of the expert reviewers in the early stages of the design process. In a document submitted to the FSAC at its initial July 5, 2005, meeting, Dr. Pollanen proposed that members of the Review Panel meet five criteria. They must be considered forensic pathologists, either by training, experience, qualification, or some combination thereof; have performed autopsies on infants and children, and have testified in relation to such autopsies; be acquainted with the coroner's system of death investigation; have knowledge of the procedures and historical practices of Ontario's coroner system and the OPFPU; and be respected in the Ontario forensic pathology community.

By the fall of 2005, one Canadian and three international experts had been selected: Dr. John Butt from Vancouver; Dr. Jack Crane from Northern Ireland; Dr. Christopher Milroy from England; and Dr. Helen Whitwell from England. As discussions of the review process continued, it became apparent than an additional expert reviewer would be needed to complete it in a timely fashion. In 2006, Dr. Pekka Saukko from Finland was added to the roster.

The five reviewers met all of Dr. Pollanen's criteria, with the exception of the fourth; they lacked knowledge of the procedures and historical practices of Ontario's coroner system and the OPFPU. Accordingly, this information was provided to them when they met in Toronto to conduct their reviews. Each of the five reviewers had obtained formal training and certification in forensic pathology, and, as evidenced by their qualifications, which are set out below, each was eminently qualified for the task. I am satisfied that the five forensic pathologists are among the very best in the world. The OCCO was extremely fortunate to obtain their services.

Dr. John Butt

Dr. Butt graduated from the University of Alberta medical school in 1960. He obtained pathology training both in Canada and in England, training in 1965 in morbid anatomy and hematology as an associate resident at Vancouver General Hospital and working at the Institute of Neurology, Queen's Square, in London, England, in 1965–66. From 1967 to 1971, he worked at Guy's Hospital in the Department of Clinical Pathology and Department of Morbid Anatomy. In 1969, Dr. Butt obtained his diploma in medical jurisprudence (DMJ) in pathology from the Worshipful Society of Apothecaries of London. He became a member of the Royal College of Pathologists in 1973 by examination in morbid anatomy and forensic pathology, and in 1985, he became a fellow.

Dr. Butt has also taught forensic pathology. From 1971 to 1973, he was a lecturer at the Department of Forensic Medicine at Charing Cross Hospital medical school in London. From 1974 to 1977, he served as a full-time associate professor in the Division of Pathology at the University of Calgary, Faculty of Medicine. While in Alberta, Dr. Butt was also responsible for organizing the forensic pathology service to support the coroner's system. He was Alberta's Chief Coroner for a brief period, before the province moved to a medical examiner system. In 1977, Dr. Butt became the first chief medical examiner for the Province of Alberta, remaining in that position until 1993. From 1996 to 1999, he was the chief medical examiner for the Province of Nova Scotia. During that time, he was also a professor of pathology at the Dalhousie University medical school.

Dr. Butt has also been highly involved in the National Association of Medical Examiners, an American organization dedicated to the improvement of death investigations. He has served as president, vice-president, chairman, and member of the board of directors of that association. In April 2000, he was appointed a member of the Order of Canada.

Dr. Jack Crane

Dr. Crane obtained his bachelor of medicine and surgery degree from Queen's University of Belfast in 1977. In 1982 he received his DMJ (Clinical), and in 1983 he obtained his DMJ (Pathology) from the Worshipful Society of Apothecaries of London. Dr. Crane then specialized in forensic pathology, becoming a member of the Royal College of Pathologists in 1984. In 1985, he became a fellow of the Royal College of Physicians of Ireland, Faculty of Pathology. In 1990, he was appointed state pathologist for Northern Ireland.

In 1993, he became a professor of forensic medicine at Queen's University of Belfast, a position he continues to hold in 2008. Dr. Crane also sits on several committees. He is a council member of the Royal College of Pathologists, chair of the Forensic Pathology Sub-Committee, member of the Home Office Policy Delivery Board, member of the Forensic Pathology Council, and member of the Scientific Standards of Policy Advisory Board for Forensic Pathology. He is an examiner in forensic pathology at the Royal College of Pathologists and is the chief examiner and convenor for the DMJ at the Worshipful Society. Dr. Crane is also widely published.

Dr. Christopher Milroy

Dr. Milroy graduated from the University of Liverpool with a bachelor's degree in medicine and surgery in 1983. In 1990, he became a member of the Royal College of Pathologists, with a subspecialty in histopathology. Dr. Milroy then spent 18 months at the University of Sheffield, receiving specific training in forensic pathology. In 1991, he obtained his DMJ in forensic pathology from the Worshipful Society of Apothecaries in London. In 1994, Dr. Milroy was granted his medical degree, the North American equivalent of a PhD, in forensic pathology from the University of Liverpool. He became a fellow at the Royal College of Pathologists in 1998 and in 2004 received his law degree from the University of London.

Dr. Milroy has also taught forensic pathology and is widely published in the field. In 2000, he was appointed professor of forensic pathology at the University of Sheffield. Since 1991, Dr. Milroy has been on the United Kingdom Home Office list of registered forensic pathologists. He is currently the Chief Forensic Pathologist of the Forensic Science Service and consultant pathologist to the Home Office. He is also involved in the examining of potential forensic pathologists by the Royal College of Pathologists and the Worshipful Society.

Dr. Helen Whitwell

Dr. Whitwell obtained her bachelor of medicine and surgery degree in 1977 from the University of Manchester. In 1985, she became a member of the Royal College of Pathologists in general histopathology, and in 1990 she obtained her DMJ in pathology from the Worshipful Society of Apothecaries in London. In 1996, she became a fellow of the Royal College of Pathologists. In 2003 and 2005, respectively, she became a fellow of the Australasian College of Biomedical Scientists; and of the Faculty of Forensic and Legal Medicine, as a founding fellow, at the Royal College of Pathologists.

Dr. Whitwell has been highly involved with the Home Office and the Royal College of Pathologists. In the 1990s, she served on the Neuropathology Sub-Committee of the Royal College of Pathologists, the Home Office Policy Advisory Board in Forensic Pathology and its Quality Assurance and Scientific Standards Committee, and the Association of Clinical Pathologists Sub-Committee on Forensic Pathology. From 2000 to 2004, she continued as a member of the Home Office Policy Advisory Board. From 2001 to 2004, she was also the chair of the Royal College of Pathologists Standing Advisory Committee in Forensic Pathology. Since 2000, she has served on the Home Office Policy Advisory Board Scientific Standards Committee. She is an external examiner for the Royal College of Pathologists in forensic pathology and is the deputy convenor for the DMJ in forensic medical sciences offered by the Worshipful Society.

Between 2000 and 2004, Dr. Whitwell was a professor in and the head of the Department of Forensic Pathology at the University of Sheffield. Since 2004, she has continued as an honorary professor at the university. Since 1988, she has been on the Home Office list of accredited forensic pathologists.

Dr. Whitwell's subspecialty is forensic neuropathology, and she has been consulted nationally and internationally in forensic neuropathological cases. From 1986 to 1998, Dr. Whitwell was the senior consultant neuropathologist at the Queen Elizabeth Hospital–University Hospital NHS Trust in Birmingham. From 1999 to 2001, she was involved in a prominent study on the patterns of brain damage in infant head injury. She is a reviewer of scientific papers for several pathology, neuropathology, forensic science, and legal medicine journals. Dr. Whitwell has contributed chapters to various books on her subspecialty. She has presented at numerous national and international lectures and scientific meetings. Her writings and presentations cover many of the issues specifically raised in the 45 cases subject to the Chief Coroner's Review, such as head injury, brain death, and shaken baby syndrome. In 2005, she edited and contributed to a textbook on forensic neuropathology.

Dr. Pekka Saukko

Dr. Saukko qualified in medicine from the University of Vienna in 1975. He became a registered physician in 1976 and began training in forensic medicine at the Department of Forensic Medicine at the University of Oulu in Finland. He was certified as a specialist in forensic medicine by the National Board of Health in Finland in 1981 and, two years later, was awarded a doctorate in medical science and delivered a thesis in forensic pathology at the University of Oulu.

In 1986, Dr. Saukko was appointed adjunct professor of forensic medicine at the University of Oulu. From 1978 to 1989, he served as the provincial medical officer, forensic expert, at the Provincial Government of Oulu, Department of Social Affairs and Health. He was a professor of forensic medicine at the University of Tampere and the University of Kuopio from 1989 to 1991, and in 1992 he was appointed the head of the Department of Forensic Medicine at the University of Turku. Dr. Saukko is a founding member and current president of the European Council of Legal Medicine, a professional organization representing forensic pathology within the European Union and the European Economic Space. He is widely published in the area of forensic medicine and forensic pathology – in peer-reviewed scientific journals, international textbooks, and forensic science encyclopedias. Since 1993, he has been editor in chief of one of the leading international peer-reviewed forensic journals, the *Forensic Science International*, and a member of the editorial board of a further six national and international forensic science journals. In 2004, he co-authored the third edition of *Knight's Forensic Pathology*, one of the most prominent textbooks in the area.

Dr. Smith's Involvement in the Chief Coroner's Review

The FSAC and its subcommittee, tasked with making recommendations on the design of the review process, considered whether it should involve Dr. Smith in the Review. Ultimately, both committees determined that the appearance of independence in the Chief Coroner's Review would be best served by not having Dr. Smith directly involved. On November 3, 2005, counsel for Dr. Smith indicated to the OCCO that Dr. Smith was willing to cooperate in the OCCO's implementation of the Chief Coroner's Review but understood the necessity of an independent and objective review.

The Review Process

The FSAC determined, subsequent to recommendation from its subcommittee, that the cases should be streamed to give certain ones higher priority. The cases

involving individuals whose liberty interests remained at issue, including cases where individuals were out of custody but on parole or bail, were deemed high priority and were thus to be reviewed earlier in the process. Cases were classified into four categories according to their legal outcome:

1 cases involving individuals who were out of custody, with no restrictions on their liberty;
2 cases involving individuals who were out of custody, but with restrictions on their liberty;
3 cases involving individuals who were in custody, without an extant appeal or application for ministerial review; and
4 cases involving individuals who were in custody, with an extant appeal or application for ministerial review.

The FSAC determined that it would give priority to cases falling within the second through fourth categories. On November 1, 2005, Dr. McLellan announced that 10 high-priority cases had been identified. Two of the 10 cases ended up being a part of the 18 cases considered in detail by the Commission: Valin's case and Kenneth's case.[5] In April 2006, an additional case, Jenna's, which was also examined by the Commission, was added for priority review.

In addition to streaming the cases by legal outcome, the FSAC classified the cases according to the potential issues they raised. A subset of cases was given to Ontario forensic pathologists for review. The rationale was that these cases were relatively straightforward. Assigning them to the Ontario forensic pathologists would assist in having the Chief Coroner's Review finish on time. Because pediatric forensic autopsies were at the time also being performed at the Hamilton and the London regional forensic pathology units, Dr. McLellan asked the directors of the units, Dr. Chitra Rao and Dr. Michael Shkrum, respectively, to be the Ontario forensic pathologists for that subset of 10 of the 45 cases. Both Dr. Rao and Dr. Shkrum have formal training in forensic pathology.

The remaining 35 cases were assigned to the external reviewers.

Dr. Rao completed her review of her cases on July 17, 2006, and Dr. Shkrum completed his review on July 31, 2006. In none of the 10 cases did either Dr. Rao or Dr. Shkrum find concerns with Dr. Smith's work that was considered worthy of further review by the external panel.

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[5] See Appendix 28 at the end of Volume 4 for summaries of the 20 cases that the Review Panel found problematic.

Early in the process, the FSAC recognized a need to notify the families of the deceased and counsel for any accused persons involved in the cases included in the Chief Coroner's Review. On September 19, 2005, the FSAC decided that the regional coroners should notify these people, preferably in a face-to-face meeting or over the telephone.

Initially, the FSAC had anticipated sending review packages to the reviewers. From a practical point of view, however, it became evident that sending the materials around the world would not permit the Review to be completed within Dr. McLellan's one-year time frame. In addition, the FSAC wanted to ensure that forensic materials such as microscopic slides were secure. Ultimately, the decision was made to bring the pathologists to Toronto in two panels to review the 35 remaining cases.

The five reviewers – Dr. Butt, Dr. Crane, Dr. Milroy, Dr. Whitwell, and Dr. Saukko – came to Toronto in December 2006 and sat in two panels. Each reviewer was assigned seven cases. Then, at the completion of the individual reviews, each panel held reconciliation meetings with Dr. Pollanen to ensure that members of the panel were in agreement and to provide a mechanism for dissenting opinions to be heard and discussed. Dr. Pollanen was not a voting member on the cases that he had reviewed: the cases of Jenna, Valin, Paolo, and Joshua.

There were two panels. The first included Dr. Crane, Dr. Milroy, and Dr. Whitwell. They met in Toronto from December 4 to 8, 2006. Dr. Pollanen testified that these three experts often worked together and had requested to be placed on a panel together.

Dr. Pollanen also gave the reviewers a document that he had prepared, entitled "Preliminary Observations on Smith Cases for External Review (n=35)." For each of the 35 cases, Dr. Pollanen set out Dr. Smith's opinion on the cause of death, as well as his own preliminary observations of the case. Dr. Pollanen testified that, given the tight time frame, the document was intended to orient the reviewers to the main issues that were apparent. His preliminary observations were meant to serve as a starting point for the experts' independent reviews.

The reviewers spent the following three days individually reviewing their seven cases. Then, on December 8, 2006, a reconciliation meeting took place at the OCCO. During the meeting, the reviewers discussed their findings in each of their seven cases and came to an agreement on all 21 cases.

The second panel convened in Toronto from December 11 to 15, 2006. It included Dr. Butt, Dr. Saukko, and Dr. Milroy. Dr. Butt and Dr. Saukko were each assigned seven cases. Dr. Milroy, who was on the first panel as well, was not assigned any additional cases. The panel's reconciliation meeting took place on December 15, 2006. The second panel came to an agreement on all remaining 14 cases.

Results of the Review

The results of the Chief Coroner's Review may be summarized as follows:

1 In all but one of the 45 cases, the reviewers agreed that Dr. Smith had conducted the important examinations that were indicated.
2 In nine of the 45 cases, the reviewers did not agree with significant facts that appeared in either Dr. Smith's report or his testimony.
3 In 20 of the 45 cases, the reviewers took issue with Dr. Smith's opinion in either his report or his testimony, or both. In 12 of those 20 cases, there had been findings of guilt by the courts.[6]

The external reviewers identified three categories of issues with respect to Dr. Smith's work: forensic pathology, testimony, and administration. More specifically, the reviewers noted that Dr. Smith appeared to have no training in forensic pathology, which resulted in misdiagnosis in a number of instances; that he provided unbalanced or emotive testimony, which tended to invite inappropriate and adverse conclusions; and that he did not seem to recognize the importance of working in a forensic environment and the importance of the continuity of evidence.

After they had received the results, Dr. McLellan and Dr. Pollanen discussed some of the limitations to the Chief Coroner's Review process. On January 8, 2007, Dr. Pollanen wrote a memorandum to Dr. McLellan containing his thoughts and observations. The memorandum provided important insight into the narrow scope of the Chief Coroner's Review and its corresponding limitations. In particular, Dr. Pollanen identified several considerations that had to be taken into account in assessing the results of the Review. A failure to do so could result in a skewed view of both the scope of the Chief Coroner's Review and Dr. Smith's work in general.

Importantly, the Chief Coroner's Review focused on a small subset of Dr. Smith's cases. It was limited to the 45 cases in which Dr. Smith was involved that entered the criminal justice system. The reality was, however, that much of Dr. Smith's work involved non-criminally suspicious cases. The narrow scope of the Chief Coroner's Review thus limited significantly what its results could say about Dr. Smith's work on a more general level. The Review Panel simply did not consider the quality of his work in general.

[6] In a 13th case, the Court found the accused not criminally responsible for the child's death by reason of a mental disorder.

Dr. Pollanen rightly pointed to several more limitations that flow from the Review's narrow focus. First, to use any kind of statistical analysis could be seriously flawed. For instance, to say that Dr. Smith's "error rate" was 20 of 45 would be wrong. Instead, the Chief Coroner's Review showed that Dr. Smith had committed errors in 20 of the 45 cases reviewed. These 45 cases consisted of only a very small subset of his overall work in the relevant time period, and they were some of the most difficult, and important, cases a pathologist could encounter.

Second, the reality is that medical knowledge evolves with research and time. What was once considered diagnostic of a certain condition might later be cast in doubt. Importantly, the Review Panel was not asked to consider if Dr. Smith's opinion or his testimony was reasonable in light of the state of knowledge at the time. When the reviewers checked "No" on their review forms to indicate that Dr. Smith's opinion on the cause of death was not reasonable on the available evidence, they applied their knowledge in 2006 to Dr. Smith's opinions in the 1990s. Significant advances in medical knowledge, particularly in relation to the diagnosis of infant head injury, have been made. What was reasonable in the 1990s might no longer be so a decade later. As a result, Dr. Pollanen rightly pointed out that *any* review of infant head injury cases might identify problematic cases. The problems identified in some cases therefore might not relate so much to Dr. Smith's competence as to the shift in knowledge on the topic.

Third, the Chief Coroner's Review did not consider the efficacy of the oversight of Dr. Smith's work, or how the death investigation system or criminal justice system interfaced with Dr. Smith. The Review was not designed as an assessment of the OCCO's quality assurance processes in existence at the time, and therefore its results said nothing about those processes.

Finally, the Chief Coroner's Review did not consider the role of the coroner or other members of the death investigation team in these 45 cases. The reality is that the pathologist is but one member of the death investigation team and that he or she relies, in important ways, on the work of other members. The Chief Coroner's Review did not consider the roles of those other members and how competently they fulfilled their duties. Inadequate pre-autopsy information from the investigating coroner might lead to an inadequate post-mortem examination, for instance. If that deficiency was present in any of the 45 cases, the Chief Coroner's Review did not consider it. Any claim that the errors in the 20 cases were solely Dr. Smith's would therefore be wrong.

Nonetheless, the fundamental result of the Review was that five world-renowned experts all took serious issue with Dr. Smith's work in 20 of his cases. These cases were among his most difficult. But they were also among his most

important because they were cases where serious criminal charges were at stake for individuals and where the criminal justice system had relied, often fundamentally, on his professional abilities.