In the United States Court of Federal Claims
OFFICE OF SPECIAL MASTERS
No. 21-1332V

* *	Chief Special Master Corcoran
MARLENA and JEFFREY LLOYD, as parents and natural guardians of C.L., a minor, *	Filed: September 29, 2025
Petitioners, *	
v. *	
SECRETARY OF HEALTH AND HUMAN SERVICES, *	
Respondent. *	
* *	

Ronald Homer, Conway Homer P.C., Boston, MA, for Petitioners.

Alec Saxe, U.S. Department of Justice, Washington, DC, for Respondent.

ENTITLEMENT DECISION[1]

On May 6, 2021, Marlena and Jeffrey Lloyd, on behalf of their minor child, C.L., filed this action seeking compensation under the National Vaccine Injury Compensation Program (the "Vaccine Program").[2] Petition (ECF No. 1) ("Pet.") at 1. Petitioners alleged that C.L. developed transverse myelitis ("TM") due to the diphtheria/tetanus/acellular pertussis ("DTaP"), haemophilus influenzae B ("Hib"), inactivated poliovirus ("IPV"), pneumococcal conjugate ("PCV"), and rotavirus vaccines she received on October 7, 2020. Pet. at 1.

[1] Under Vaccine Rule 18(b), each party has fourteen (14) days within which to request redaction "of any information furnished by that party: (1) that is a trade secret or commercial or financial in substance and is privileged or confidential; or (2) that includes medical files or similar files, the disclosure of which would constitute a clearly unwarranted invasion of privacy." Vaccine Rule 18(b). Otherwise, the whole Ruling will be available to the public in its present form. *Id.*

[2] The Vaccine Program comprises Part 2 of the National Childhood Vaccine Injury Act of 1986, Pub. L. No. 99-660, 100 State. 3758, codified as amended at 42 U.S.C. §§ 300aa-10 through 34 (2012) [hereinafter "Vaccine Act" or "the Act"]. Individual section references will be to § 300aa of the Act (but will omit that statutory prefix).

A one-day entitlement hearing was held in Washington, D.C., on January 16, 2025. Now, based upon my review of the record and consideration of the hearing testimony, including expert input, I deny entitlement.

I. Fact Summary

Early Medical History and October 2020 Vaccinations

C.L. was born on June 7, 2020, following a pregnancy that was complicated by maternal severe pre-eclampsia. Ex. 4 at 59. C.L.'s Apgar scores[3] were 8 and one minute and 9 at five minutes. *Id.* She was seen by her pediatrician for routine well baby visits over the next several weeks, and was noted to exhibit normal growth and development, despite experiencing some abnormal weight loss, neonatal jaundice, and chronic eczema. *See* Ex. 5 at 15–16, 20–21, 23–25.

On August 19, 2020, Mrs. Lloyd took C.L. for a two-month check-up based upon concerns that she was congested. Ex. 5 at 17. At that time, C.L. also received the DTaP, Hib, IPV, PCV, Hepatitis B ("Hep B"), and rotavirus vaccines—all without complication. *Id.* at 17–19. There were no abnormal findings documented during C.L.'s assessment at this time. *Id.* at 18–19. Two months later, on October 7, 2020, C.L. received her second doses of the DTaP, Hib, IPV, PCV, and rotavirus vaccines—again without complication or any evidence of an immediate reaction. She was further noted to be generally well developed, well nourished, and in no apparent distress. *Id.* at 13–14.

Hospitalization from Late-October 2020 to March 2021

On October 26, 2020 (now nineteen days after the vaccinations at issue), Mrs. Lloyd took C.L. to her pediatrician's office due to symptoms of irritability and fussiness that had begun while at daycare around noon that same day. *Id.* at 10. Mrs. Lloyd reported that C.L. had refused to take her bottle and was not moving much. Ex. 5 at 10. She further noted that C.L. had appeared normal prior to being dropped off at daycare, but stated that there were similarly ill contacts at C.L.'s daycare, and even indicated that she and Mr. Lloyd were then experiencing upper respiratory infections ("URIs"). *Id.*

Upon examination, C.L. appeared "severely ill, crying, and lethargic." Ex. 5 at 10. Her anterior fontanel was sunken, and her nose was congested. *Id.* Sara Dorsey, the examining nurse practitioner, advised Mrs. Lloyd to take C.L. directly to the emergency room ("ER") at Children's Healthcare of Atlanta Emergency Department for further evaluation. *Id.*

At the hospital, Petitioners explained to treating staff that C.L. had been in her usual state of health (except mild nasal congestion) up until a few hours before. Ex. 6 at 632. They also noted

[3] "Apgar Score" is defined as "a numerical expression of the condition of a newborn infant, usually determined at 60 seconds after birth, being the sum of points gained on assessment of the heart rate, respiratory effort, muscle tone, reflex irritability, and color." *Apgar Score*, Dorland's Medical Dictionary Online, https://www.dorlandsonline.com/dorland/definition?id=105165&searchterm=Apgar+score (last visited Sep. 24, 2025).

that their entire family (including C.L.) had been sick with URI symptoms in the previous month. *Id.* Upon examination, C.L. was characterized as not wanting to move or use her arms, not gripping Mrs. Lloyd's finger, and not wanting to put any weight on her legs. *Id.* at 1069. Mrs. Lloyd reported to the emergency medicine physician, Phillip Kelley, M.D., that C.L. exhibited no fever, cough, or cold symptoms, and experienced no vomiting or diarrhea. *Id.*

Upon examination, C.L.'s upper extremities were documented as "motionless and [she] [did] not respond to pinching of the medial aspect of [her] upper arm . . ." Ex. 6 at 1070. Dr. Kelley further noted an apparent "anesthetic area superior to the horizontal line at 2 cm inferior to the nipples above which [C.L.] show[ed] no response" but that "below this line[,] [C.L.] [could] move [her] legs when pinched." *Id.* Although C.L. exhibited bilateral deep tendon reflexes ("DTRs"), she had no grip strength and could not be pulled to sit as she had no muscle tone. *Id.* Lab results at this time were unremarkable. *Id.* at 1074.

C.L. was next seen by neurologist Stephanie Keller, M.D. Ex. 6 at 1074. Dr. Keller documented C.L.'s ability to lift both legs from the hip and kick, but noted no movement in her arms or hands. *Id.* at 863. Dr. Keller also noted that C.L. withdrew from pain in the trunk above T4 ,and in the legs and lower extremities, but did not withdraw from pain in her arms. *Id.* Similarly, Dr. Keller was able to elicit DTRs in C.L.'s bilateral patella, but was unable to elicit the same response in her upper extremities. *Id.* Dr. Keller's notes indicated a "concern[ ] for a cervical or upper thoracic spine process," and recommended C.L. undergo X-rays of her neck to rule out a bone injury before undergoing MRIs of her brain and complete spin. *Id.* at 863, 1074. C.L.'s X-rays of her cervical spine were unremarkable, but brain and spine MRIs revealed "[n]onenhancing expansile cord signal abnormality extending from C2 to T5." *Id.* at 1073–74.

A second neurologist, David Wolf, M.D., read C.L.'s MRIs as revealing "multisegmental T2/FLAIR hyperintense lesion in [the] cervical spine," which he found concerning for TM. Ex. 6 at 1076. Dr. Wolf recommended C.L. undergo a lumbar puncture ("LP") so as to rule out other potential causes before having C.L. transferred to the Pediatric Intensive Care Unit ("PICU") for a single dose of high dose corticosteroid therapy. *Id.* at 1068, 1074, 1076. Following performance of the LP, C.L. was admitted to the PICU for close neurologic monitoring and critical care management. *Id.* at 632–41. Upon admission, C.L. was hypertensive, motionless in her upper extremities, and had no head control. *Id.* at 633. She was also unresponsive to painful stimuli above the nipple line, had mildly labored breathing, as well as required a c-collar due to minimal head control. *Id.* at 635.

On the morning of October 27, 2020, C.L. had difficulty breathing, leading attending physician Charlene Banks, M.D., to intubate her. Ex. 6 at 1076. She was again examined by Dr. Keller, who noted "some progression of [C.L.'s] weakness [ ] and loss of her reflexes." *Id.* at 1088. Dr. Keller's notes included rhinovirus and adenovirus among C.L.'s active problems, as well as

her concern for Acute Flaccid Myelitis ("AFM")[4] based on C.L.'s positive viral panel. *Id.* at 1088. Follow-up cervical and thoracic spine MRIs were ordered to determine whether there was more gray or white matter involvement—the results of which demonstrated "[p]redominately gray matter involvement" and "extension of the spinal cord lesion but . . . no restricted diffusion—proving to be more "consistent with probable AFM", according to Dr. Keller. *Id.* C.L.'s steroid treatment was subsequently stopped, and she began a two-day IVIG[5] course. *Id.* at 1076.

C.L.'s medical management team then consulted with infectious disease specialist, Christina Rostad, M.D. Ex. 6 at 684–72. During the consultation, Dr. Rostad noted that C.L. had exhibited several days of "URI [symptoms] and [a] low grade fever (99.4F) leading up to the changes in her clinical status on Monday[,] 10/26" and further confirmed that C.L.'s Respiratory Viral Panel ("RVP") was positive for rhino/enterovirus and adenovirus. *Id.* at 864, 872. Dr. Rostad agreed with C.L. neurology team that C.L. should continue treating with IVIG. *Id.* at 872.

Over the next two days (October 29 – 30, 2020), C.L. developed intermittent fevers. Ex. 6 at 1132. Dr. Rostad suggested that the fevers "[m]ay have been attributable to her known viral infections vs. IVIG infusion, or an occult bacterial process." *Id.* She agreed to continue monitoring C.L. to see whether her "presentation evolve[d] into transverse myelitis." *Id.* at 1118. C.L. underwent chest X-rays on October 31, 2020, which revealed "[p]ersistent multifocal airspace and alveolar opacities concerning for pulmonary edema vs infectious process." *Id.* at 1132. Due to the concern for development of a secondary bacterial infection, Dr. Rostad recommended C.L. begin an antimicrobial therapy with ceftazidime. *Id.*

On November 2, 2020, C.L. underwent repeat MRIs of her total spine, which revealed "[p]ersistent T2 high signal abnormality [of] the cervical and thoracic cord, improved when compared with [her] prior study" and "[p]ersistent widening of the cervical cord"—suggesting further a concern for AFM. Ex. 6 at 1253. At this time, she remained intubated and mechanically

[4] "Acute Flaccid Myelitis" is defined as "an uncommon but serious neurologic condition" which "affects the nervous system, specifically the area of the spinal cord called gray matter, which causes the muscles and reflexes in the body to become weak." *About Acute Flaccid Myelitis*, Center for Disease Control, https://www.cdc.gov/acute-flaccid-myelitis/about/index.html (last visited Sep. 29, 2025).

[5] "Intravenous Immunoglobulin" is defined as "a pooled anti body, and a biological agent used to manage various immunodeficiency states and a plethora of other conditions, including autoimmune, infectious, and inflammatory states. The ultimate goal of this therapy is to normalize a compromised immune system." *Intravenous Immunoglobulin (IVIG)*, National Library of Medicine, https://www.ncbi.nlm.nih.gov/books/NBK554446/ (last visited Sep. 29, 2025).

ventilated. *Id.* at 1187. She underwent NCS[6] and EMG[7] studies six days later, on November 8, 2020, but the results were unremarkable. *Id.* at 1352.

C.L. was eventually started on a new, high-dose steroid course due to the swelling of her cervical cord. Ex. 6 at 1352, 1384. After four days of a five-day treatment course, C.L. showed mild improvement—leading her neurologist Sumit Verna, M.D., to recommend weaning C.L. off the high-dose steroid course and following it with an oral steroid following completion of her fifth and final day of treatment. *Id.* at 1384. C.L. was to undergo a second round of IVIG the following week. *Id.*

On November 17, 2020, C.L. was extubated. Ex. 6 at 1474. Records indicate that C.L. could spontaneously mover her arms as well as her lower extremities to minimal stimuli. It was further noted that she had increased tone in her lower extremities and slightly increased ton in her right upper extremity. *Id.* at 1474–75. Neurologist Amber Auad, M.D., examined C.L. the next day and noted she could bring both hands to her mouth, swat but not grasp, and move her lower extremities minimally with stimulation. *Id.* at 1503–04. Dr. Auad opined that TM was the most likely diagnosis, although C.L. would need to be followed over time before it could be confirmed. Ex. 6 at 1508.

A repeat MRI of C.L.'s spine performed on November 20, 2020, revealed "[p]ersistent abnormal contrast enhancement of the cauda equina nerve roots." Ex. 6 at 1616. C.L. began exhibiting improvement in her functioning following a tracheostomy placement on December 1, 2020. *Id.* at 282. C.L.'s father noted that she was able to open and close her right hand and spontaneously move the fingers of her left hand and her toes. *Id.* at 1793. It was further noted that C.L. no longer needed a catheter, as she was able to urinate on her own. *Id.*

C.L. was eventually transferred out of the PICU and into the Comprehensive Inpatient Rehabilitation Unit ("CIRU") on December 9, 2020. Ex. 6 at 461, 475. C.L. remained in the CIRU until she was discharged in March 2021. *Id.* During the remainder of her hospitalization, C.L. received her monthly doses of IVIG treatment, and demonstrated cognitive and linguistic skills, hearing, and comprehension of basic information within functional limits. *Id.* at 619, 2096, 2521, 4011. C.L. was discharged on March 1, 2021, and further noted to have met her long-term goals

[6] "Nerve Conduction Study" is defined as "an essential tool in the evaluation of the peripheral nervous system. The sensory nerve action potential (SNAP) provides information on the sensory nerve axon and its pathway from the distal receptors in the skin to the dorsal root ganglia, while the compound muscle action potential (CMAP) is an assessment of the motor nerve fibers from their origins in the anterior horn cell to their termination along muscle fibers." *Nerve Conduction Studies: Basic Concepts*, National Library of Medicine, https://pubmed.ncbi.nlm.nih.gov/31277849/ (last visited Sep. 29, 2025).

[7] "Electromyography" is defined as "an electrodiagnostic technique for recording the extracellular activity (action potentials and evoked potentials) of skeletal muscles at rest, during voluntary contractions, and during electrical stimulation; performed using any of a variety of surface electrodes, needle electrodes, and devices for amplifying, transmitting, and recording the signals." *Electromyography*, Dorland's Medical Dictionary Online, https://www.dorlandsonline.com/dorland/definition?id=15854&searchterm=electromyography (last visited Sep. 24, 2025).

established during her initial physical therapy evaluation. *Id.* at 4021. C.L. treating physicians recommended she continue with occupational and physical therapy following her discharge. *Id.*

Treatment Course Post-Hospitalization

On June 9, 2021, C.L. saw neurologist Grace Gombolay, M.D. Ex. 12 at 2515–23. She noted C.L. was "continuing to make progress . . . eating by mouth now, and [ ] [ ] army crawling," as well as exhibiting some improvement in her posture and return of sensation to her legs. *Id.* Dr. Gombolay, however, documented that C.L. still had clonus.[8] *Id.* C.L. was to start weaning off gabapentin begin a three-month trial of IVIG, obtain repeat spine MRIs, and follow-up in four months. *Id.* at 2522. A little over a month later, C.L. was admitted to Children's Healthcare of Atlanta on July 23, 2021, for ventilator weaning and was discharged two days later. Ex. 54 at 65.

C.L. underwent repeat spine MRIs on January 26, 2022, which demonstrated "[n]o definite residual spinal cord signal abnormality," and "[r]esolution of previously seen contrast enhancement of the cauda equina nerve roots." Ex. 12 at 7806. C.L. saw Dr. Gombolay regularly for neurology follow-up visits, and was deemed to be doing well overall and making continued improvements. Ex. 13 at 2994 (October 2022 visit). Dr. Gombolay diagnosed C.L. with TM and cross-eye after observing some abnormal eye movements upon examination. *Id.* at 3002. Throughout her post-hospitalization treatment course, C.L.'s medical records indicate that she continued to gradually receive additional various childhood vaccines, although her recovery has not been complete. *Id.* at 9886; Ex. 54 at 85.

II. Expert Testimony

A. *Petitioners' Expert - Daniel J. Bonthius, M.D., Ph.D.*

Dr. Bonthius, a neurologist, submitted three written reports on behalf of Petitioner and testified at the hearing. Report, dated May 31, 2023, filed as Ex. 14 (ECF No. 40-1); Report, dated March 25, 2024, filed as Ex. 70 (ECF No. 53-1); Report, dated September 26, 2024, filed as Ex. 89 (ECF No. 60-1). Dr. Bonthius opined that one or more of the vaccines C.L. received in October 2022 could cause acute TM, and did so to C.L.

Dr. Bonthius obtained his B.S. in Zoology, and M.D., and Ph.D. in neuroscience, all from the University of Iowa. *See* Curriculum Vitae, filed as Ex. 15 (ECF No. 40-2) ("Bonthius CV"). After obtaining his joint M.D. and Ph.D., Dr. Bonthius accepted a Fulbright Scholarship at the University of Otago, in New Zealand, where he conducted research in Neuroanatomy. Bonthius CV at 1. From there, he completed a post-doctoral fellowship in Neuroscience and residency in

[8] "Clonus" is defined as "1. Alternate muscular contraction and relaxation in rapid succession. 2. A continuous rhythmic reflex tremor initiated by the spinal cord below an area of a spinal cord injury, set in motion by reflex testing." *Clonus*, Dorland's Medical Dictionary Online, https://www.dorlandsonline.com/dorland/definition?id=10153&searchterm=clonus (last visited Sep. 24, 2025).

Pediatrics at the University of Virginia. *Id.* He then completed a second residency in Pediatric Neurology at the University of Iowa, where he was offered a faculty position and practiced as a pediatric neurologist for twenty-two years. *Id.* Dr. Bonthius is board certified in Neurology with a Special Qualification in Child Neurology, and is licensed to practice medicine in the state of North Carolina. *Id.* He currently serves as the Division Chief for the Division of Child Neurology at Atrium Health/Levine Children's Hospital in Charlotte, North Carolina, and teaches Neurology at Wake Forest University School of Medicine. *Id.* at 2. In addition, he has published literature on immune-mediated injury to the central nervous system and has around 71 peer-reviewed publications. *Id.* at 23–29.

Dr. Bonthius defined TM as an acute onset, inflammatory disease localized to the spinal cord. Tr. at 24:11–13. Symptoms include weakness of the extremities, sensory loss, and impairment of bladder function. *Id.* at 24:15–17. Diagnostic criteria for TM include many factors, but in Dr. Bonthius's opinion "sensory motor or autonomic dysfunction attributable to the spinal cord, T2 hyperintense signal changes on the spinal MRI, and no evidence of a compressive cord lesion" are "probably necessary" for the diagnosis to be correct. *Id.* at 25–26; B. Greenberg, *Transverse Myelitis*, UpToDate (2023), http://www.UpToDate.com, filed as Ex. 27 (ECF No. 40-14) ("Greenberg"). After recounting C.L.'s medical history, Dr. Bonthius agreed with the hospital physician's diagnosis of TM, and deemed it consistent with accepted criteria for the condition. *Id.* at 12, 26–27.

Dr. Bonthius opined that the cause of C.L.'s TM was either one or a combination of her four-month vaccines received in October 2020. Tr. at 27. To support the relationship between vaccines and TM, Dr. Bonthius primarily relied on three articles. *See id.* at 29–31 (discussing F. Pidcock et al., *Acute Transverse Myelitis in Childhood: Center-Based Analysis of 47 Cases*, 68 Neurology 1474, 1479 (May 1, 2007), filed as Ex. 42 (ECF No. 40-29) ("Pidcock") (twenty-eight percent of patients reviewed developed TM within thirty days of receiving a vaccine); A. Kaplin et al., *Diagnosis and Management of Acute Myelopathies*, 11 Neurologist 1, 4 (2005), filed as Ex. 31 (ECF No. 40-18) ("Kaplin") (discussing immunopathogenesis and putative mechanisms for the development of TM in patients); A. Borchers et. al., *Transverse Myelitis*, 11 Autoimmunity Revs. 231, 241–42 (2012), filed as Ex. 103 (ECF No. 73-3) ("Borchers") (listing multiple potential triggers for TM).

The correlation between TM and vaccines is widely noted, even if complete evidence of causation is still lacking. *See generally* Kaplin; Pidcock. Thus, Kaplin's authors observed that TM as a post-vaccination event is widely reported in neurology texts despite a lack of sufficient evidence of causation. Tr. at 30–31 (discussing Kaplin at 4). As a result, the exact mechanism by which infections and immunizations trigger TM is unknown. *Id.* at 32, 53. But, Dr. Bonthius noted, TM can be autoimmune or parasitic in origin. *Id.* at 27.

In instances where TM has an autoimmune-mediated pathology, Dr. Bonthius contended, onset of the disease process could be triggered by many different factors, including prior or ongoing infections, genetic susceptibility, or vaccines—in each case via the mechanism of molecular mimicry. Tr. at 27–29, 32. Molecular mimicry is based upon the concept that a foreign pathogen or antigen has an identical or similar sequence homology to a host protein, leading to immune cross-reactivity by antibodies produced in response to the foreign, mimicking antigen. *Id.* at 32; Kaplin at 4. It is a recognized immunopathogenic mechanism in some kinds of post-vaccination central nervous system ("CNS") demyelinating diseases. Tr. at 33–34 (citing N. Agmon-Levin et al., *Transverse Myelitis and Vaccines: A Multi-Analysis*, 18 Lupus 1198, 1201 (Nov. 2009), filed as Ex. 16 (ECF No. 40-3) ("Agmon-Levin") (authors assuming that because infectious agents can induce autoimmunity, so can live, attenuated antigens used in vaccines); D. Karussis & P. Petrou, *The Spectrum of Post-Vaccination Inflammatory CNS Demyelinating Syndromes*, 13 Autoimmune Rev. 215, 221 (Mar. 2014), filed as Ex. 33 (ECF No. 40-20) ("Karussis"). Kaplin's authors found evidence of autoimmune disorders causing CNS dysfunction in the spinal cords of post-vaccination patients that later died of TM. *Id.* at 34–35 (discussing Kaplin at 3).

Antibodies are key to driving the cross-reactive harm that manifests as TM, Dr. Bonthius contended. Tr. at 51–54 (referencing L. Pandit & S. Rao, *Recurrent Myelitis,* 60 J. Neurol. Neurosurg. Psych. 336, 336 (1996), filed as Ex. 41 (ECF No. 40-28) ("Pandit"); D. Tippett et al., *Relapsing Transverse Myelitis*, 41 Neurology 703, 703 (1991), filed as Ex. 49 (ECF No. 40-49) ("Tippett"); *see also* Greenberg). But Dr. Bonthius was unable to submit evidence showing isolated antibodies from patients with idiopathic TM. *Id.* at 51–54. In addition, Dr. Bonthius did not attempt to identify sequence or structural homology between the antigens or other components in the vaccines C.L. received and human nerve components that would support the hypothesis that they have molecular similarity. *Id.* at 63–65. He also conceded that the current state of modern medicine does not allow for the conclusion that the DTaP, Hib, IPV, Prevnar or rotavirus vaccines *do* cause TM in this manner, despite the reasoned evidence he believed supported this conclusion. *Id.* at 55–56.

Instead, Dr. Bonthius's molecular mimicry theory heavily relied on two analogies. First, he analogized vaccines to infectious agents, concluding that because infectious agents can induce autoimmunity, so can the live or attenuated antigens used in vaccines. Tr. at 57–58. Second, Dr. Bonthius compared other autoimmune diseases to TM, stating that if they can be caused by vaccines, TM could be as well. *Id.* at 61–63. Thus, her referenced neurologic conditions like Guillain-Barré syndrome ("GBS"), Opsoclonus/myoclonus syndrome, and acute hemorrhagic leukoencephalitis, all of which may be triggered by vaccination *Id.* (referencing H. Willison et al., *Guillain-Barre Syndrome*, 338 Lancet 717, (2016), filed as Ex. 52 (ECF No. 40-39); D. Koelman & F. Mateen, *Acute Disseminated Encephalomyelitis: Current Controversies in Diagnosis and Outcome*, 262 J. Neurol. 2013, (2015), filed as Ex. 34 (ECF No. 40-21); A. Piquet et al.,

Opsoclonus-Myoclonus Syndrome Post-Vaccination and Viral Illness, 3 Int. J. Clin. Med. 304, (2012), filed as Ex. 43 (ECF No. 40-30); K. Wellnitz et al., *Fatal Acute Hemorrhagic Leukoencephalitis Following Immunization Against Human Papillomavirus in a 14 Year Old Boy,* Child Neurol. Open 2021, at 1, 4, filed as Ex. 50 (ECF No. 40-37)).

Dr. Bonthius next addressed the timing for post-vaccination onset. Tr. at 38–39. An autoimmune response following a vaccine, he maintained, takes time before clinical manifestations appear that would reflect the ongoing, cross-reactive damage. *Id.* at 38. Dr. Bonthius's estimation for peak immune response leading to onset of demyelinating diseases post-vaccination would be between two to four weeks following the triggering event. *Id.* at 38–39. C.L.'s vaccines were administered nineteen days before Petitioners observed her initial symptoms, placing them within this post-vaccination window. *Id.* at 39. Therefore, in Dr. Bonthius's opinion, C.L.'s TM onset and immunizations line up with medical professionals' expectations of a vaccine induced immune response. *Id.*

Multiple case studies and other medical literature in this case, Dr. Bonthius contended, demonstrate a comparable temporal relationship between administration of vaccines and the development of TM or other autoimmune diseases. In one such case study, a seven-month old boy was diagnosed with acute TM seventeen days after receiving a DTaP vaccine, consistent with the timing in this case. R. Riel Romero, *Acute Transverse Myelitis in a 7-month-old Boy After Diphtheria-Tetanus-Pertussis Immunization*, 44 Spinal Cord 688, 688 (Nov. 2006) ("Riel Romero"). Another case report focused on the development of TM in a seven-month old girl only six to seven days after receiving immunizations containing diphtheria, tetanus toxoid, and oral poliomyelitis. E. Whittle & N. Robertson, *Transverse Myelitis After Diphtheria, Tetanus, and Polio Immunisation*, 1 Brit. Med. J. 1450, 1450 (June 4, 1997) ("Whittle & Robinson"). The authors of the Whittle & Robinson case study relied on the evidence of a temporal association for a possible connection between the patient's vaccines and her TM. *Id.* Other case reports and medical literature offer similar observations and note the temporal correlation. *See* Tr. at 67–69 (discussing Karussis (inferred vaccine causation of TM based on case reports with temporal association) and Agmon-Levin (noting the temporal association between vaccines and TM, and stating this phenomenon cannot be ignored)).

Dr. Bonthius agreed that the authors of these case reports and other medical literature usually acknowledged that it was unwise to give great weight to case reports and finding causation based on temporal proximity. Tr. at 68 (quoting Kaplin at 3). Temporally-based findings must be viewed with caution because the closeness of two events in time could be purely coincidental. *Id.* at 68–69. Nevertheless, Dr. Bonthius considered the close proximity of the vaccines to C.L.'s TM onset to be significant.

Dr. Bonthius also expressed the belief that a preexisting infection had not triggered C.L.'s TM, contrary to what other providers seem to have believed. Tr. at 40–41, 83–84. In so opining, he relied heavily on the fact that the vaccines C.L. received were administered closer in time to her TM onset than the development of her infections. *See id.* at 80, 108. Yet he also contended that the adenovirus and rhinovirus/enterovirus positive RVP panels performed around the time of C.L's hospitalization (and hence observed *even closer* in time to her onset) did not undermine his theory. In so opining, he proposed that that C.L. had already likely recovered from her infections before being admitted to the hospital. *Id.* at 17–18, 40. RVP tests can be positive even after the virus is no longer active due to remnant nucleic acids from the virus remaining after infection. *Id.* at 39–40. Accordingly, Dr. Bonthius did not deem these test results to establish the presence of live, active viruses, but rather reflected a resolved prior infection. *Id.* at 18, 39–40. And C.L.'s treating providers did not voice an opinion as to whether her RVP tests were indicative of a past or active infection. *Id.* at 83–84.

At most, Dr. Bonthius contended, C.L.'s infections may have impacted her immune system in a way that made her more vulnerable to an abnormal immune response brought on after the October 2020 vaccinations. Tr. at 41. He offered independent medical literature as support for the concept that exposure to multiple immune stressors can prompt abnormal immune responses. *Id.* at 42 (citing G. Goldman & N. Miller, *Relative Trends in Hospitalizations and Mortality Among Infants by the Number of Vaccine Doses and Age, Based on the Vaccine Adverse Event Reporting System (VAERS)*, 31 Hum. & Experimental Toxicology 1012, 1012 (2012), filed as Ex. 102 (ECF No. 73-2) ("Goldman & Miller").

Goldman & Miller discusses a Centers for Disease Control ("CDC") report that indicates exposures to mixed stressors can produce health consequences. *See* Goldman & Miller at 1018. The possibility of concomitant exposure and increased risks of adverse effects is also noted as a possibility by the authors of the Riel Romero case study as to why the patient developed TM. Tr. at 35–36 (discussing Riel Romero at 690). The Riel-Romero patient was noted to have been experiencing an infection at the time of receiving a tetanus-containing vaccine, which could have been a complicating factor capable of stressing his immune system to the point where he developed TM. Riel Romero at 690. The fact that C.L. received five vaccinations in the context of a prior infection was thus significant to Dr. Bonthius, since this combination of stressors might have overwhelmed C.L's immune system, encouraging the development of TM. Tr. at 42–43.

B. *Respondent's Expert - Matthew J. Elrick, M.D. Ph.D.*

Dr. Elrick, a neurologist, submitted two written reports on behalf of Respondent and testified at the hearing. Report, dated September 10, 2023, filed as Ex. A (ECF No. 46-1) ("Elrick First Rep."); and Report, dated July 31, 2024, filed as Ex. C (ECF No. 57-1). Dr. Elrick opined that that there was no evidence to support an antibody-mediated cause for TM, and he denied that

any of the vaccines C.L. received, alone or in combination, could have triggered C.L.'s TM. Elrick First Rep. at 5.

Dr. Elrick obtained his Bachelor of Science in biochemistry from the University of Maryland. *See* Curriculum Vitae, filed as Ex. B (ECF No. 43-20) ("Elrick CV"). From there, he attended the University of Michigan, where he received his M.D. and Ph.D. in neurology. Elrick CV at 1. Dr. Elrick then attended Johns Hopkins for his residencies in pediatrics and child neurology. *Id.* Currently, Dr. Elrick is an Assistant Professor of Neurology and Developmental Medicine at the Kennedy Krieger Institute and Assistant Professor of Pediatric Neurology and Neuromuscular Medicine at the Johns Hopkins School of Medicine. *Id.* He is board certified in Neurology with Special Qualification in Child Neurology, and he specializes in pediatric neuromuscular disorders. *Id.* at 4. His practice has allowed him to frequently evaluate children with transverse myelitis, spinal cord infarction, GBS, acute flaccid myelitis (AFM), infantile botulism, myopathies, and myasthenia gravis. Elrick First Rep. at 1. Beyond practicing medicine, Dr. Elrick has authored 19 peer-reviewed publications, some of which focus on the diagnosis of AFM. *Id.*

Dr. Elrick made it clear from the outset of his testimony that he agreed with the Petitioner's TM diagnosis. Tr. at 118:13–16, 139–140. TM, he maintained, is historically a catch-all term for several different kinds of CNS-oriented inflammatory disorders, many of which are not well-understood. *Id.* at 121–22. But as medical science has developed, treaters have been better able to identify, and differentiate, several specific disorders that in the past would have been grouped under the general TM umbrella. *Id.* at 119–23. Here, Petitioner's antibody testing, MRIs, observed bilateral sensory dysfunction, and acute presentation (roughly twenty-four hours from onset to nadir) ruled out many other demyelinating disorders, or AFM, in favor of the diagnosis of idiopathic TM. *See id.* at 119–126.

Despite this agreement, Dr. Elrick disputed Dr. Bonthius's causation theory. To the extent vaccines have any association with TM, he maintained, it is due to instances in which there appears a temporal association only, and more evidence is needed before a causal relationship can be deemed likely. Tr. at 123–24 (discussing C. Krishnan et al., *Transverse Myelitis: Pathogenesis, Diagnosis and Treatment*, 9 Frontiers in Bioscience 1483, 1483 (May 1, 2004), filed as Ex. A-9 (ECF No. 43-10) ("Krishnan"). Even many of Petitioner's articles conceded this. Whittle & Robertson at 1450; Riel-Romero at 690; Agmon-Levin at 1202.

Dr. Elrick summarized Dr. Bonthius's medical theory as TM being caused by vaccines via molecular mimicry, inducing an antibody response that results in immune cross-reactivity. Tr. at 126. But Dr. Elrick took issue with the contention that TM *is* likely an antibody-mediated disease. *Id.* at 127. In his view, there is no more than scant evidence that autoantibodies are present in idiopathic TM, and there is no evidence that they play a mechanistic role in causing it. *Id.* at 126–

27. This is in contrast to CNS-impacting autoimmune diseases known to be antibody-mediated, like neuromyelitis optica and encephalomyelitis—where specific, identified antibodies are known to exist and to likely drive the disease process. *Id*. 127–29 (discussing M. Kinoshita et al., *Neuromyelitis Optica: Passive Transfer to Rats by Human Immunoglobulin*, 386 Biochemical Biophysical Rsch. Commc'ns 623, 623 (2009), filed as Ex. A-8 (ECF No. 43-9); H. Schluesener et al., *A Monoclonal Antibody Against a Myelin Oligodendrocyte Glycoprotein Induces Relapses and Demyelination in Central Nervous System Autoimmune Disease*, 139 J. Immunology 4016, 4016 (Dec. 15, 1987), filed as Ex. A-16 (ECF No. 43-17)).

Here, by contrast, Dr. Bonthius's articles offered to support his claim that TM was an antibody-mediated disorder either did not identify a causal autoantibody, or did not discuss testing revealing the presence of one. Tr. at 129–30 (citing Pandit; Tippett). Only Greenberg provided evidence of antibodies in a patient with TM, but that could be explained by the patient's pre-existing antiphospholipid antibody syndrome that had developed before TM. *Id.* at 130 (discussing Greenberg). C.L. otherwise did not test positive for any particular antibodies that might be biomarkers for any known CNS-oriented disease. Ex. 6 at 926; Tr. at 123. And Dr. Bonthius did not propose a specific mimic between vaccine antigenic component and self nerve tissue, nor did he establish evidence of structural or sequential homology for either. Tr. at 136–37.

Dr. Elrick also deemed flawed Dr. Bonthius's argument that the existence of infectious causes for TM (mediated by molecular mimicry) opened the door to vaccination causation. Tr. at 134 ("it's not necessarily true that if an infection can cause an autoimmune disorder, that a vaccination against the same infection will have the same immune response and the same propensity for causing autoimmune disease"). In fact, Dr. Elrick could not think of any known examples of molecular mimicry occurring due to receipt of a vaccine. *Id.* And he offered independent evidence demonstrating that a response to a vaccination was not equivalent in relevant respects to the immune response to a wild infection. *Id.* 134–36 (discussing M. Samanovic et al., *Vaccine-Acquired SARS-CoV-2 Immunity versus Infection-Acquired Immunity: A Comparison of Three COVID-19 Vaccines*, 10 Vaccines 2152, 2152 (2022), filed as Ex. A-15 (ECF No. 81-15) (reviewing differences in immune response between people who were vaccinated against SARS-CoV-2 and those who were naturally infected by it).

Besides taking issue with Dr. Bonthius's causation theory, Dr. Elrick argued that it could not be concluded on this record that C.L.'s TM was caused by her October vaccinations. Rather, there were two more-likely triggers for Petitioner's TM: that it was truly idiopathic (meaning it had no identifiable cause), or was caused by an antecedent infection (adenovirus and/or rhino/enterovirus). Tr. at 157-58, 170, 190.

A disease is deemed idiopathic if there is no understood explanation of its cause. Tr. at 76. Idiopathic transverse myelitis lacks a known pathogenic mechanism, and in fact may not be caused

by autoantibodies at all. *Id*. at 53. At best, there has been an observed correlation where 30% to 60% of idiopathic TM cases have an antecedent respiratory, gastrointestinal, or systemic illness. *See id.* at 77–78, 158; *see also* Greenberg at 2; Krishnan at 1491. And even so, Dr. Elrick noted, roughly half of idiopathic TM cases have no identifiable triggers or preceding environmental factor—vaccine, injury, or infection—that could even be possibly causal. *Id.* at 158.

Here, however, the medical record did identify several possible triggers: an adenovirus infection, rhino/enterovirus infection, or a combination of the two. *See* Tr. at 155. Medical science accepts that TM can be post- or para-infectious, and has documented the frequency and kinds of infections preceding TM diagnoses. *Id.*; Greenberg at 2; Krishnan at 1491. Krishnan's authors have in fact noted that many cases of TM are post-infectious. Krishnan at 1944. And another article expressly identifies adenovirus and enterovirus as infections that may be associated with myelopathies (which would also include TM). Tr. at 124–25; J. Lyons et al., *Myelopathy Associated with Microorganisms*, 21 Continuum 100, 101 (2015), filed as Ex. 37 (ECF No. 40-24) ("Lyons"). In Dr. Elrick's view, the infection at issue need not be serious in order to trigger an autoimmune condition. Tr. at 157.

As the medical record in this case demonstrates, C.L.'s pediatrician noted that C.L. was congested on October 26, 2020, one day before being hospitalized. Tr. at 85 (discussing Ex. 5 at 11). Other providers at Children's Healthcare of Atlanta also noted moderate congestion and low-grade fever that same day, and added rhinorrhea to C.L.'s symptoms on October 28, 2020. *Id.* at 86–90 (citing Ex. 6 at 635, 864, 866, 871). C.L. also had a *Id.* at 88–89 (citing Ex. 6 at 864). Then, when C.L. was hospitalized, treating providers ordered an RVP, which was positive for adenovirus and rhinovirus/enterovirus. Tr. at 151. While Dr. Bonthius contested the significance of these results due to their sensitivity (and concomitant ability to pick up inactive viruses),[9] Dr. Elrick deemed them significant—as had C.L.'s treating providers, who noted that her neurological-like presentation may have been attributable to her URIs. *Id.* at 156. Thus, Dr. Elrick felt that C.L.'s positive RVP test result supported the conclusion that her TM had a post- or para-infectious etiology. *See id*. at 157–58, 170, 190.

Other testing results obtained during C.L.'s evaluation did not, in Dr. Elrick's view, rule out a post- or para-infectious cause for C.L.'s TM. Her CSF inflammatory marker results, for example, established the presence of inflammation but would not be indicative of viruses or infections that could enter the nervous system. Tr. at 153. Rather, infections that are potential TM triggers are usually systemic infections that generally do not enter the CNS. *Id.* Similarly, PCR tests would have been used to rule out meningitis, encephalitis, or an active infection, but evidence

[9] Dr. Elrick acknowledged that RVP tests can pick up DNA and RNA left over from inactive infections as they tail off, but he felt it unlikely that they would pick up the remnants of viruses that were a month old. Tr. at 152–53. Some tail-off periods have been studied, according to Dr. Elrick, and the period for a positive rhinovirus/enterovirus test result reflective of a resolved or preexisting infection is rather quick, at seven to ten days. *Id.*

of the presence of a virus in blood serum would not show up on a CSF test either. *See id.* at 153–54.

Finally, Dr. Elrick discussed the timeframe in which C.L.'s initial TM symptoms manifested, deeming it consistent with a viral cause. Tr. at 159–60. TM, and other autoimmune diseases, have a lag time between the trigger and onset of symptoms, of a few days up to four weeks. *Id*. at 159. That period was consistent with both of Petitioner's viral infections, since the first was estimated to have begun the month before Petitioner's hospitalization, and the second was present leading up to and during the time of hospitalization. *Id.* at 160. *See also* Ex. 5 at 11, 17; Ex. 6-2 at 894–95. Thus, either could have been the spark for C.L.'s TM.

On cross examination, Dr. Elrick acknowledged that the CDC had indicated that exposure to mixed immune stimuli can produce health consequences that can add to or work in tandem with other biologic or environmental factors, creating new health risks. Tr. at 189; Goldman & Miller at 1018. This allowed an inference that the vaccines C.L. received, and viral infections she was then experiencing, could have worked together to trigger C.L.'s TM. Dr. Elrick nevertheless maintained that the trigger for C.L.'s TM was just as likely to be unknown. *See id.* at 190.

III. Procedural History

This case was initiated in May 2021, and (after the process for evaluating the sufficiency of document filings in the case was completed) subsequently assigned to my own docket in June 2022. *See* Docket Entry, dated June 7, 2022 (ECF No. 27). Respondent filed his Rule 4(c) Report contesting Petitioner's right to compensation on October 27, 2022. *See* Report, dated Oct. 27, 2022 (ECF No. 30). The parties subsequently filed expert reports, completing the process in the fall of 2024. The parties submitted pre-hearing submissions, and trial of the matter occurred as scheduled in January 2025. Petitioners' Prehearing Brief, dated Oct. 4, 2024 (ECF No. 62); Respondent's Prehearing Brief, dated Nov. 4, 2024 (ECF No. 67); Petitioners' Prehearing Reply Brief, dated Dec. 5, 2024 (ECF No. 76). With the filing of post-hearing briefs in late March, the matter became ripe for resolution. Petitioners' Post Hearing Brief, dated Mar. 21, 2025 (ECF No. 87) ("Br."); Respondent's Post Hearing Brief, dated Mar. 21, 2025 (ECF No. 88).

IV. Applicable Legal Standards

A. *Petitioner's Overall Burden in Vaccine Program Cases*

To receive compensation in the Vaccine Program, a petitioner must prove either: (1) that he suffered a "Table Injury"—i.e., an injury falling within the Vaccine Injury Table—corresponding to one of the vaccinations in question within a statutorily prescribed period of time or, in the alternative, (2) that his illnesses were actually caused by a vaccine (a "Non-Table Injury"). *See* Sections 13(a)(1)(A), 11(c)(1), and 14(a), as amended by 42 C.F.R. § 100.3; §

11(c)(1)(C)(ii)(I); *see also Moberly v. Sec'y of Health & Hum. Servs.*, 592 F.3d 1315, 1321 (Fed. Cir. 2010); *Capizzano v. Sec'y of Health & Hum. Servs.*, 440 F.3d 1317, 1320 (Fed. Cir. 2006).[10] There is no Table claim for TM after any of the vaccines at issue.

For both Table and Non-Table claims, Vaccine Program petitioners bear a "preponderance of the evidence" burden of proof. Section 13(1)(a). That is, a petitioner must offer evidence that leads the "trier of fact to believe that the existence of a fact is more probable than its nonexistence before [he] may find in favor of the party who has the burden to persuade the judge of the fact's existence." *Moberly*, 592 F.3d at 1322 n.2; *see also Snowbank Enter. V. United States*, 6 Cl. Ct. 476, 486 (1984) (mere conjecture or speculation is insufficient under a preponderance standard). Proof of medical certainty is not required. *Bunting v. Sec'y of Health & Hum. Servs.*, 931 F.2d 867, 873 (Fed. Cir. 1991). In particular, a petitioner must demonstrate that the vaccine was "not only [the] but-for cause of the injury but also a substantial factor in bringing about the injury." *Moberly*, 592 F.3d at 1321 (quoting *Shyface v. Sec'y of Health & Hum. Servs.*, 165 F.3d 1344, 1352–53 (Fed. Cir. 1999)); *Pafford v. Sec'y of Health & Hum. Servs*., 451 F.3d 1352, 1355 (Fed. Cir. 2006). A petitioner may not receive a Vaccine Program award based solely on his assertions; rather, the petition must be supported by either medical records or by the opinion of a competent physician. Section 13(a)(1).

In attempting to establish entitlement to a Vaccine Program award of compensation for a Non-Table claim, a petitioner must satisfy all three of the elements established by the Federal Circuit in *Althen v. Sec'y of Health and Hum. Servs.,* 418 F.3d 1274, 1278 (Fed. Cir. 2005): "(1) a medical theory causally connecting the vaccination and the injury; (2) a logical sequence of cause and effect showing that the vaccination was the reason for the injury; and (3) a showing of proximate temporal relationship between vaccination and injury."

Each *Althen* prong requires a different showing. Under *Althen* prong one, petitioners must provide a "reputable medical theory," demonstrating that the vaccine received *can cause* the type of injury alleged. *Pafford*, 451 F.3d at 1355–56 (citations omitted). To satisfy this prong, a petitioner's theory must be based on a "sound and reliable medical or scientific explanation." *Knudsen v. Sec'y of Health & Hum. Servs.*, 35 F.3d 543, 548 (Fed. Cir. 1994). Such a theory must only be "legally probable, not medically or scientifically certain." *Id.* at 549.

Petitioners may satisfy the first *Althen* prong without resort to medical literature, epidemiological studies, demonstration of a specific mechanism, or a generally accepted medical theory. *Andreu v. Sec'y of Health & Hum. Servs.*, 569 F.3d 1367, 1378–79 (Fed. Cir. 2009) (citing

[10] Decisions of special masters (some of which I reference in this ruling) constitute persuasive but not binding authority. *Hanlon v. Sec'y of Health & Hum. Servs.*, 40 Fed. Cl. 625, 630 (1998). By contrast, Federal Circuit rulings concerning legal issues are binding on special masters. *Guillory v. Sec'y of Health & Hum. Servs.*, 59 Fed. Cl. 121, 124 (2003), *aff'd* 104 F. App'x. 712 (Fed. Cir. 2004); *see also Spooner v. Sec'y of Health & Hum. Servs.*, No. 13-159V, 2014 WL 504728, at *7 n.12 (Fed. Cl. Spec. Mstr. Jan. 16, 2014).

Capizzano, 440 F.3d at 1325–26). Special masters, despite their expertise, are not empowered by statute to conclusively resolve what are essentially thorny scientific and medical questions, and thus scientific evidence offered to establish *Althen* prong one is viewed "not through the lens of the laboratorian, but instead from the vantage point of the Vaccine Act's preponderant evidence standard." *Id.* at 1380. Distinguishing between "preponderant evidence" and "medical certainty" is important because special masters must take care not to impose an evidentiary burden that is too high. *Bunting v. Sec'y of Health & Human Servs.*, 931 F.2d 867, 873 (Fed.Cir.1991) ("The standard of proof required by the [Vaccine] Act is simple preponderance of evidence; not scientific certainty.... [I]t is not plaintiff's burden to disprove every possible ground of causation suggested by defendant nor must the findings of the court meet the standards of the laboratorian.") (citations and internal quotation marks omitted).

In discussing the evidentiary standard applicable to the first *Althen* prong, the Federal Circuit has consistently rejected the contention that it can be satisfied merely by establishing the proposed causal theory's scientific or medical *plausibility*. *See Cerrone v. Sec'y of Health & Hum. Servs.*, 146 F.4th 1113, 1122 (Fed. Cir. 2025); *Kalajdzic v. Sec'y of Health & Hum. Servs.*, No. 2023-1321, 2024 WL 3064398, at *2 (Fed. Cir. June 20, 2024) (arguments "for a less than preponderance standard" deemed "plainly inconsistent with our precedent" (*citing Moberly*, 592 F.3d at 1322)); *Boatmon v. Sec'y of Health & Hum. Servs.*, 941 F.3d 1351, 1359 (Fed. Cir. 2019); *see also Demore v. Sec'y of Health & Hum. Servs.*, No. 20-1265V, 2024 WL 4542934 (Fed. Cl. Spec. Mstr. Sept. 26, 2024), *aff'd*, No. 20-1265V, 2025 WL 868902, at *4 (Fed. Cl. Mar. 20, 2025) (rejecting the argument that a petitioner's burden is to prove that a causation theory is *plausible* and instead requiring petitioner to prove the theory by a preponderance of the evidence) (emphasis added). And petitioners always have the ultimate burden of establishing their *overall* Vaccine Act claim with preponderant evidence. *W.C. v. Sec'y of Health & Hum. Servs.*, 704 F.3d 1352, 1356 (Fed. Cir. 2013) (citations omitted); *Tarsell v. United States*, 133 Fed. Cl. 782, 793 (2017) (noting that *Moberly* "addresses the petitioner's overall burden of proving causation-in-fact under the Vaccine Act" by a preponderance standard).

The second *Althen* prong requires proof of a logical sequence of cause and effect, usually supported by facts derived from a petitioner's medical records. *Althen*, 418 F.3d at 1278; *Andreu*, 569 F.3d at 1375–77; *Capizzano*, 440 F.3d at 1326; *Grant v. Sec'y of Health & Hum. Servs.*, 956 F.2d 1144, 1148 (Fed. Cir. 1992). In establishing that a vaccine "did cause" injury, the opinions and views of the injured party's treating physicians are entitled to some weight. *Andreu*, 569 F.3d at 1367; *Capizzano*, 440 F.3d at 1326 ("medical records and medical opinion testimony are favored in vaccine cases, as treating physicians are likely to be in the best position to determine whether a 'logical sequence of cause and effect show[s] that the vaccination was the reason for the injury'") (quoting *Althen*, 418 F.3d at 1280). Medical records are generally viewed as particularly trustworthy evidence, since they are created contemporaneously with the treatment of the patient. *Cucuras v. Sec'y of Health & Hum. Servs.*, 993 F.2d 1525, 1528 (Fed. Cir. 1993).

Medical records and statements of a treating physician, however, do not *per se* bind the special master to adopt the conclusions of such an individual, even if they must be considered and carefully evaluated. Section 13(b)(1) (providing that "[a]ny such diagnosis, conclusion, judgment, test result, report, or summary shall not be binding on the special master or court"); *Snyder v. Sec'y of Health & Hum. Servs*., 88 Fed. Cl. 706, 746 n.67 (2009) ("there is nothing . . . that mandates that the testimony of a treating physician is sacrosanct—that it must be accepted in its entirety and cannot be rebutted"). As with expert testimony offered to establish a theory of causation, the opinions or diagnoses of treating physicians are only as trustworthy as the reasonableness of their suppositions or bases. The views of treating physicians should be weighed against other, contrary evidence also present in the record—including conflicting opinions among such individuals. *Hibbard v. Sec'y of Health & Hum. Servs.*, 100 Fed. Cl. 742, 749 (2011) (not arbitrary or capricious for special master to weigh competing treating physicians' conclusions against each other), *aff'd*, 698 F.3d 1355 (Fed. Cir. 2012); *Veryzer v. Sec'y of Dept. of Health & Hum. Servs.*, No. 06-522V, 2011 WL 1935813, at *17 (Fed. Cl. Spec. Mstr. Apr. 29, 2011), *mot. for review den'd*, 100 Fed. Cl. 344, 356 (2011), *aff'd without opinion*, 475 F. Appx. 765 (Fed. Cir. 2012).

The third *Althen* prong requires establishing a "proximate temporal relationship" between the vaccination and the injury alleged. *Althen*, 418 F.3d at 1281. That term has been equated to the phrase "medically-acceptable temporal relationship." *Id.* A petitioner must offer "preponderant proof that the onset of symptoms occurred within a timeframe which, given the medical understanding of the disorder's etiology, it is medically acceptable to infer causation." *De Bazan v. Sec'y of Health & Hum. Servs.*, 539 F.3d 1347, 1352 (Fed. Cir. 2008). The explanation for what is medically acceptable timeframe must align with the theory of how the relevant vaccine can cause an injury (*Althen* prong one's requirement). *Id.* at 1352; *Shapiro v. Sec'y of Health & Hum. Servs.*, 101 Fed. Cl. 532, 542 (2011), *recons. Den'd after remand*, 105 Fed. Cl. 353 (2012), *aff'd mem.*, 503 F. Appx. 952 (Fed. Cir. 2013); *Koehn v. Sec'y of Health & Hum. Servs.*, No. 11-355V, 2013 WL 3214877 (Fed. Cl. Spec. Mstr. May 30, 2013), *mot. for rev. den'd* (Fed. Cl. Dec. 3, 2013), *aff'd*, 773 F.3d 1239 (Fed. Cir. 2014).

B. *Legal Standards Governing Factual Determinations*

The process for making determinations in Vaccine Program cases regarding factual issues begins with consideration of the medical records. Section 11I(2). The special master is required to consider "all [ ] relevant medical and scientific evidence contained in the record," including "any diagnosis, conclusion, medical judgment, or autopsy or coroner's report which is contained in the record regarding the nature, causation, and aggravation of the petitioner's illness, disability, injury, condition, or death," as well as the "results of any diagnostic or evaluative test which are contained in the record and the summaries and conclusions." Section 13(b)(1)(A). The special master is then required to weigh the evidence presented, including contemporaneous medical records and

testimony. *See Burns v. Sec'y of Health & Hum. Servs*., 3 F.3d 415, 417 (Fed. Cir. 1993) (determining that it is within the special master's discretion to determine whether to afford greater weight to contemporaneous medical records than to other evidence, such as oral testimony surrounding the events in question that was given at a later date, provided that such determination is evidenced by a rational determination).

As noted by the Federal Circuit, "[m]edical records, in general, warrant consideration as trustworthy evidence." *Cucuras*, 993 F.2d at 1528; *Doe/70 v. Sec'y of Health & Hum. Servs.*, 95 Fed. Cl. 598, 608 (2010) ("[g]iven the inconsistencies between petitioner's testimony and his contemporaneous medical records, the special master's decision to rely on petitioner's medical records was rational and consistent with applicable law"), *aff'd*, *Rickett v. Sec'y of Health & Hum. Servs*., 468 F. App'x 952 (Fed. Cir. 2011) (non-precedential opinion). A series of linked propositions explains why such records deserve some weight: (i) sick people visit medical professionals; (ii) sick people attempt to honestly report their health problems to those professionals; and (iii) medical professionals record what they are told or observe when examining their patients in as accurate a manner as possible, so that they are aware of enough relevant facts to make appropriate treatment decisions. *Sanchez v. Sec'y of Health & Hum. Servs.*, No. 11–685V, 2013 WL 1880825, at *2 (Fed. Cl. Spec. Mstr. Apr. 10, 2013); *Cucuras*, 993 F.2d at 1525 ("[i]t strains reason to conclude that petitioners would fail to accurately report the onset of their daughter's symptoms").

Accordingly, if the medical records are clear, consistent, and complete, then they should be afforded substantial weight. *Lowrie v. Sec'y of Health & Hum. Servs*., No. 03–1585V, 2005 WL 6117475, at *20 (Fed. Cl. Spec. Mstr. Dec. 12, 2005). Indeed, contemporaneous medical records are often found to be deserving of greater evidentiary weight than oral testimony—especially where such testimony conflicts with the record evidence. *Cucuras*, 993 F.2d at 1528; *see also Murphy v. Sec'y of Health & Hum. Servs*., 23 Cl. Ct. 726, 733 (1991), *aff'd per curiam*, 968 F.2d 1226 (Fed. Cir. 1992), *cert. den'd*, *Murphy v. Sullivan*, 506 U.S. 974 (1992) (citing *United States v. United States Gypsum Co.*, 333 U.S. 364, 396 (1947) ("[i]t has generally been held that oral testimony which is in conflict with contemporaneous documents is entitled to little evidentiary weight.")).

However, the Federal Circuit has also noted that there is no formal "presumption" that records are accurate or superior on their face to other forms of evidence. *Kirby v. Sec'y of Health & Hum. Servs.,* 997 F.3d 1378, 1383 (Fed. Cir. 2021). There are certainly situations in which compelling oral or written testimony (provided in the form of an affidavit or declaration) may be more persuasive than written records, such as where records are deemed to be incomplete or inaccurate. *Campbell v. Sec'y of Health & Hum. Servs*., 69 Fed. Cl. 775, 779 (2006) ("like any norm based upon common sense and experience, this rule should not be treated as an absolute and must yield where the factual predicates for its application are weak or lacking"); *Lowrie*, 2005 WL

6117475, at *19 ("[w]ritten records which are, themselves, inconsistent, should be accorded less deference than those which are internally consistent") (quoting *Murphy*, 23 Cl. Ct. at 733)). Ultimately, a determination regarding a witness's credibility is needed when determining the weight that such testimony should be afforded. *Andreu*, 569 F.3d at 1379; *Bradley v. Sec'y of Health & Hum. Servs*., 991 F.2d 1570, 1575 (Fed. Cir. 1993).

When witness testimony is offered to overcome the presumption of accuracy afforded to contemporaneous medical records, such testimony must be "consistent, clear, cogent, and compelling." *Sanchez*, 2013 WL 1880825, at *3 (citing *Blutstein v. Sec'y of Health & Hum. Servs*., No. 90–2808V, 1998 WL 408611, at *5 (Fed. Cl. Spec. Mstr. June 30, 1998)). In determining the accuracy and completeness of medical records, the Court of Federal Claims has listed four possible explanations for inconsistencies between contemporaneously created medical records and later testimony: (1) a person's failure to recount to the medical professional everything that happened during the relevant time period; (2) the medical professional's failure to document everything reported to her or him; (3) a person's faulty recollection of the events when presenting testimony; or (4) a person's purposeful recounting of symptoms that did not exist. *La Londe v. Sec'y of Health & Hum. Servs*., 110 Fed. Cl. 184, 203–04 (2013), *aff'd*, 746 F.3d 1334 (Fed. Cir. 2014). In making a determination regarding whether to afford greater weight to contemporaneous medical records or other evidence, such as testimony at hearing, there must be evidence that this decision was the result of a rational determination. *Burns*, 3 F.3d at 417.

C. *Analysis of Expert Testimony*

Establishing a sound and reliable medical theory often requires a petitioner to present expert testimony in support of his claim. *Lampe v. Sec'y of Health & Hum. Servs*., 219 F.3d 1357, 1361 (Fed. Cir. 2000). Vaccine Program expert testimony is usually evaluated according to the factors for analyzing scientific reliability set forth in *Daubert v. Merrell Dow Pharm., Inc.*, 509 U.S. 579, 594–96 (1993). *See Cedillo v. Sec'y of Health & Hum. Servs.*, 617 F.3d 1328, 1339 (Fed. Cir. 2010) (citing *Terran v. Sec'y of Health & Hum. Servs.*, 195 F.3d 1302, 1316 (Fed. Cir. 1999). Under *Daubert*, the factors for analyzing the reliability of testimony are:

> (1) whether a theory or technique can be (and has been) tested; (2) whether the theory or technique has been subjected to peer review and publication; (3) whether there is a known or potential rate of error and whether there are standards for controlling the error; and (4) whether the theory or technique enjoys general acceptance within a relevant scientific community.

Terran, 195 F.3d at 1316 n.2 (citing *Daubert*, 509 U.S. at 592–95).

In the Vaccine Program the *Daubert* factors play a slightly different role than they do when

applied in other federal judicial settings, like the district courts. Typically, *Daubert* factors are employed by judges (in the performance of their evidentiary gatekeeper roles) to exclude evidence that is unreliable or could confuse a jury. By contrast, in Vaccine Program cases these factors are used in the *weighing* of the reliability of scientific evidence proffered. *Davis v. Sec'y of Health & Hum. Servs*., 94 Fed. Cl. 53, 66–67 (2010) ("uniquely in this Circuit, the *Daubert* factors have been employed also as an acceptable evidentiary-gauging tool with respect to persuasiveness of expert testimony already admitted"). The flexible use of the *Daubert* factors to evaluate the persuasiveness and reliability of expert testimony has routinely been upheld. *See, e.g.*, *Snyder*, 88 Fed. Cl. at 742–45. In this matter (as in numerous other Vaccine Program cases), *Daubert* has not been employed at the threshold, to determine what evidence should be admitted, but instead to determine whether expert testimony offered is reliable and/or persuasive.

Respondent frequently offers one or more experts in order to rebut a petitioner's case. Where both sides offer expert testimony, a special master's decision may be "based on the credibility of the experts and the relative persuasiveness of their competing theories." *Broekelschen v. Sec'y of Health & Hum. Servs*., 618 F.3d 1339, 1347 (Fed. Cir. 2010) (citing *Lampe*, 219 F.3d at 1362). However, nothing requires the acceptance of an expert's conclusion "connected to existing data only by the *ipse dixit* of the expert," especially if "there is simply too great an analytical gap between the data and the opinion proffered." *Snyder*, 88 Fed. Cl. at 743 (quoting *Gen. Elec. Co. v. Joiner*, 522 U.S. 146 (1997)); *see also Isaac v. Sec'y of Health & Hum. Servs*., No. 08–601V, 2012 WL 3609993, at *17 (Fed. Cl. Spec. Mstr. July 30, 2012), *mot. for review den'd*, 108 Fed. Cl. 743 (2013), *aff'd*, 540 F. App'x. 999 (Fed. Cir. 2013) (citing *Cedillo*, 617 F.3d at 1339). Weighing the relative persuasiveness of competing expert testimony, based on a particular expert's credibility, is part of the overall reliability analysis to which special masters must subject expert testimony in Vaccine Program cases. *Moberly*, 592 F.3d at 1325–26 ("[a]ssessments as to the reliability of expert testimony often turn on credibility determinations"); *see also Porter v. Sec'y of Health & Hum. Servs*., 663 F.3d 1242, 1250 (Fed. Cir. 2011) ("this court has unambiguously explained that special masters are expected to consider the credibility of expert witnesses in evaluating petitions for compensation under the Vaccine Act").

D. *Consideration of Medical Literature*

Both parties filed medical and scientific literature in this case, but not all such items factor into the outcome of this decision. While I have reviewed all the medical literature submitted, I discuss only those articles that are most relevant to my determination and/or are central to Petitioner's case—just as I have not exhaustively discussed every individual medical record filed. *Moriarty v. Sec'y of Health & Hum. Servs.*, No. 2015–5072, 2016 WL 1358616, at *5 (Fed. Cir. Apr. 6, 2016) ("[w]e generally presume that a special master considered the relevant record evidence even though he does not explicitly reference such evidence in his decision") (citation omitted); *see also Paterek v. Sec'y of Health & Hum. Servs.,* 527 F. App'x 875, 884 (Fed. Cir.

2013) ("[f]inding certain information not relevant does not lead to—and likely undermines—the conclusion that it was not considered").

ANALYSIS

I. Treatment of Transverse Myelitis in Vaccine Program

TM is a rare, neuro-immune disorder "characterized by focal inflammation within the spinal cord." Krishnan at 1483; Greenberg at 2. Symptoms and presentation can vary, but generally it appears with "rapid onset of weakness, sensory alterations, and bowel or bladder dysfunction." Greenberg at 2. TM's etiology is varied, and while it has been associated with various infectious or systemic autoimmune diseases, it often is deemed idiopathic in origin. Greenberg at 2; Borchers at 231. Importantly, and as Program decisions recognize, TM typically presents *acutely*—especially when measured from the time of an allegedly-causal trigger. *See, e.g.*, *Handjis v. Sec'y of Health & Hum. Servs*., No. 18-1044V, 2022 WL 17852426, at *16 (Fed. Cl. Dec. 5, 2022) ("[i]f one were to accept that petitioner received a high dose flu vaccine on December 10, 2015, and presented on December 14, 2015 with symptoms that were ultimately diagnosed as TM and supported by objective testing, then petitioner would have satisfied [*Althen*] Prong III"); *Raymo v. Sec'y of Health & Hum. Servs*., No. 11-0654V, 2014 WL 1092274, at *10, *19 (Fed. Cl. Spec. Mstr. Feb. 24, 2014) (onset of TM occurred between three to four days after vaccination and was consistent for an immune mediated disorder).

The treatment of TM in the vaccine program is as varied as its etiologies. Petitioners have succeeded in claims that different covered vaccines can cause TM. *See e.g.*, *Schmidt v. Sec'y of Health & Human Servs*., No. 07-20V, 2009 WL 5196169 (Fed. Cl. Spec. Mstr. Dec. 17, 2009) (granted entitlement on a claim that an influenza vaccine caused Petitioner's TM via molecular mimicry). However, as with any case, the specific factors of an individual vaccinee's medical history can impact success, even when the causal theory finds favor. *See, e.g.*, *Palattao v. Sec'y of Health & Hum. Servs*., No. 13-591V, 2019 WL 989380 (Fed. Cl. Spec. Mstr. Feb. 4, 2019) (denying entitlement in TM case where petitioners failed to establish that timing of onset of symptoms was medically appropriate under their proposed causation theory).

II. Petitioner has failed to Satisfy *Althen* Prong Two

Petitioners have failed to carry their burden of preponderantly establishing that C.L.'s four-month vaccines "did cause" (alone or in substantial contribution to) her TM. *See Althen*, 418 F.3d at 1281. This is a sufficient basis for denying entitlement, since all three *Althen* prongs must be established. *Dobrydnev v. Sec'y of Health & Hum. Servs.*, 566 Fed. Appx. 976, 980 (Fed. Cir. 2014). (And for this reason, I include no discussion of Petitioner's success in meeting the first or third *Althen* prongs).

To begin, the record lacks evidence that C.L. experienced *any* kind of reaction from the October 7, 2020 vaccines. Tr. at 105. At most (and based on comments made to treaters in later October 2020 by the Petitioners), C.L. may have been previously exposed to others suffering from an infection, or had experienced infectious symptoms of her own, before vaccination or in a timeframe consistent with the period leading up to her October 26th pediatric visit. Tr. at 41; Ex. 6 at 632, 865. C.L. clearly did not experience a fever or any other reaction in the days after the vaccinations that would warrant a doctor or hospital visit. Indeed, her first reported symptom occurred on October 26, 2020—the day she was first brought to the pediatrician.

The next (and even more compelling) evidentiary factor preventing a finding of causation is the strong evidence that C.L. was beginning to experience URI symptoms around the time of her onset. C.L. was noted to have some recurrent symptoms of congestion and low-grade fever throughout the time of her neurologic symptoms progression. Ex. 5 at 11; Ex. 6 at 635; Ex. 6 at 864. But she only started experiencing such symptoms (like weakness in the limbs) on October 26, 2025. While these neurologic symptoms literally occurred "post-vaccination," they only manifested in the wake of her confirmed URI symptoms—which *were themselves* far closer-in-time to likely TM onset. By contrast, the record reveals no medical issues in the 19 days between vaccination and C.L.'s first subsequent medical encounter.

All of the foregoing supports the conclusion that some kind of infectious process was going on around the time Petitioner was taken to the pediatrician 19 days post-vaccination. And literature filed in this case affirms that an infection can be causal of TM. *See e.g.*, Lyons at 101–02; Borchers at Table 5, 241; Karussis at 220; Agmon-Levin at 1199; Greenberg at 2. Petitioners' expert did not adequately diminish the significance of this evidence. Rather, Dr. Bonthius attempted to deny the existence of some symptoms C.L. experienced in the days leading up to her until confronted with the medical records documenting them on cross examination. *See* Tr. at 85–90. Of course, claimants need not affirmatively exclude all alternative factors that could explain an alleged vaccine injury. *Efron v. Sec'y of Health & Hum. Servs.*, No. 20-1405V, 2025 WL 408219, at *22 (Fed. Cl. Spec. Mstr. Jan. 2, 2025) (citing *M.R. v. Sec'y of Health & Hum. Servs*., No. 16-1024V, 2023 WL 4936727, at *30 (Fed. Cl. Spec. Mstr. June 30, 2023)). But they have some obligation to grapple with the record when it establishes the existence of such countervailing factors—and Petitioner failed here to do so.

Besides such clinical symptoms of an infection, the record also contains proof that C.L. tested positive for a number of specific infections—adenovirus and rhinovirus/enterovirus. She tested positive for all of those infections on October 27, 2020, only a day after first being brought to see a pediatrician. Ex. 6 at 640, 925. Accordingly, and in addition to clinical evidence that C.L. was ill for reasons other than her later-diagnosed TM at the time, there are demonstrated instances in her medical history where she tested positive for *specific* infections that could be causal of TM.

Respondent made reasonable points as to how these viruses are linked to the development of TM, and the fact that the timing of the testing result did not preclude the possibility that such an infection existed at the time of the C.L.'s onset. Dr. Bonthius, by contrast, tried to undermine the significance of these results by challenging whether the tests actually showed active viral infections. But Dr. Elrick's testimony as to the tail-off period for a rhinovirus/enterovirus infection was persuasive. Dr. Elrick testified that the tail off period for such an infection (for purposes of testing results) is approximately seven to ten days, and would likely not trigger a positive result a month after infection. *Id.* at 152–53. This suggests it was more likely in this case that C.L.'s rhinovirus/enterovirus infections could have been relatively active at the time of testing—consistent with the URI symptoms she displayed. And none of C.L.'s treating providers opined that the test results were a false positive, or were indicative of inactive viruses.

In fact, on the issue of treater views, Petitioners cannot point to instances in the record where C.L.'s treaters proposed that her four-month vaccines were the cause of her TM. Yet some of those same treaters did speculate that an infection could have been the cause of her neurologic affliction (albeit in the context of an AFM diagnosis). *See* Ex. 6 at 1132. Certainly, treater opinions are not *per se* controlling of the outcome. *Al-Uffi v. Sec'y of Health & Hum. Servs*., No. 13-956V, 2017 WL 1713113, at *13 (Fed. Cl. Spec. Mstr. Feb. 22, 2017). But no provider has opined the cause of C.L.'s TM after her diagnosis, and none embraced vaccination as explanatory. Thus, this is not a case where treater views help proving the "did cause" prong (and if anything, the absence of such favorable views hurts Petitioner's prong two showing).

Thus, the primary evidence in favor of Petitioners' claim on the "did cause" prong is the naked, approximately three-week temporal association between C.L.'s four-month vaccines and onset of her TM. But *post hoc ergo propter hoc* reasoning does not satisfy *Althen* prong two. *Fricano v. United States*, 22 Cl. Ct. 796, 800 (1991) (citing *Loesch v. United States*, 227 Ct. Cl. 34, 45, 645 F.2d 905, 914 (*post hoc ergo propter hoc* approach to causation is unpersuasive), *cert. denied*, 454 U.S. 1099, 102 S. Ct. 672, 70 L.Ed.2d 640 (1981); *Doe/34 v. Sec'y of Health & Hum. Servs*., 2009 WL 1955140, at *10 (Fed. Cl. Mar. 4, 2009), *aff'd sub nom. Jane Doe*34 v. Sec'y of Health & Hum. Servs*., 87 Fed. Cl. 758 (2009) (citing *Grant v. Sec'y of Health & Hum. Servs*, 956 F.2d 1144, 1148 (Fed.Cir.1992) ("the inoculation is not the cause of every event that occurs [after].... Without more, this proximate temporal relationship will not support a finding of causation")).

The very case reports relied upon by Petitioners note that a temporal relationship is not sufficient to determine causation. *See* Riel Romero at 690 ("[a]lthough there is a temporal relationship between the development of transverse myelitis and DTaP vaccination in our patient, it is difficult to establish a causal relationship between the two. The occurrence could have been simply coincidental"); Karussis at 221 ("[t]here is no absolute way to definitely link the onset or exacerbation of demyelination with the vaccine, but the close temporal association with the time

of vaccination strongly argues in favor or such pathogenetic correlation"); Kaplin at 4 ("[t]herefore, such case reports must be viewed with caution, as it is entirely possible that 2 events occurred in close proximity by chance alone or for reasons that are only incidentally related to the vaccination procedure").[11]

Admittedly, an argument could be made in some cases that the combination of an intercurrent infectious process and vaccination might synergistically work together to cause an injury—even where it is not clear which factor predominated. *See, e.g.*, *Xia v. Sec'y of Health & Hum. Servs.,* No. 20-1924V, slip op. at 25–26 (Fed. Cl. Spec. Mstr. Aug. 29, 2025) (record supported the conclusion that the receipt of a vaccine at the same time a child was severely ill allowed for the likelihood that both interacted synergistically, leading to Febrile Infection-Related Epilepsy Syndrome). This is sometimes in the Program thought of as a "*Shyface* analysis," where two competing factors are present, either of which could cause an adverse event, but where one cannot be ascertained to have been more likely causal than the other. *See Shyface*, 165 F.3d at 1352. Here, Petitioners have argued that they can still prevail even if other infectious factors (the adenovirus and rhinovirus/enterovirus) were partially causal, because claimants only need show that a vaccine was a "substantial factor" and "but for" cause of their injury. Br. at 31–37 (discussing *Shyface*, 165 F.3d at 1352).

On the basis of this record, however, I do not find that *Shyface* provides a basis for a favorable prong two determination. First, this is not a case in which Respondent's expert conceded that any of the vaccines C.L. received could explain her TM, such that vaccines present an alternative causal explanation, competing with an infectious etiology. Thus, the vaccines C.L. received cannot be deemed, at least on face value, to pose the same risk of TM as infections. Second, even if I *had* found in favor of Petitioner on this issue, the record still does not support the conclusion that the vaccines likely played any role at all in her injury. Thus, she displayed no reaction at all to the vaccines, with nearly three weeks passing before her pediatric visit that immediately preceded her TM diagnosis occurred; she had experienced not only some admitted infectious exposure around the relevant time period, but displayed a number of symptoms of an infection (far closer in time to her neurologic onset); and then she tested positive for several infections, all of which were as likely to cause TM as vaccines—if not more so. In this context, a viral infection as the explanation for C.L.'s illness is better supported by the record.

Petitioners' arguments on this front likely arise in part from the view that C.L.'s prior vaccinations were at work causing the manufacture of pathogenic, cross-reactive antibodies

[11] I also note that many of the filed case reports better support a shorter onset. *See* Whittle & Robinson at 1450 (onset of symptoms occurring six to seven days after vaccination); Karussis at Table 2 (showing multiple instances of myelitis onset occurring a few days after vaccination). While such matters somewhat relate to Petitioner's success on the third *Althen* prong, they also go to the question of whether it has been shown that vaccines administered three weeks before onset could be implicated in a disease process where there is no other record evidence to suggest the vaccination event was harmful.

capable of instigating TM, and that an ongoing (but subclinical) immune process in turn interacted with C.L.'s infection exposure. Again, the temporal interval between vaccination and TM onset at evidence in this matter undermines such a theory.[12] But even when a vaccine is received at the very time an individual is also experiencing an active infection, it cannot be presumed that the vaccine likely played some contributory role in any resulting disease or injury. *See, e.g., K.A. v. Sec'y of Health & Hum. Servs*., No. 16-989V, 2022 WL 20213037 (Fed. Cl. Spec. Mstr. Apr. 18, 2022) (Tdap vaccine not causal of GBS; petitioner had been experiencing active upper respiratory infection more likely causal), *mot. for review den'd*, 164 Fed. Cl. 98 (2022), *aff'd*, 2024 WL 2012526 (Fed. Cir. 2024). The fact the vaccine was "known" to have been administered also does not mean it is more likely causal, even if an alternative explanation cannot be identified with the same precision. *K.A*., WL 20213037, at *31 ("[t]he vaccine does not deserve greater weight simply because it is "known" whereas the precise nature of the infection is not"); *see also Randolph v. Sec'y of Health & Hum. Servs.*, No. 15-146V, 2021 WL 5816271, at *21 (Fed. Cl. Spec. Mstr. Nov. 12, 2021) ("[c]ausation claims do not succeed merely because Respondent cannot prove with certainty what was causal").

I cannot on this record identify what her most likely specific infectious trigger for C.L.'s TM was. But that same record does not allow a finding that any of the vaccines C.L. received were also a substantial factor in causing her TM.

CONCLUSION

Because Petitioners have not carried their burden of proof, they are not entitled to damages. In the absence of a motion for review filed pursuant to RCFC Appendix B, the Clerk of the Court **SHALL ENTER JUDGMENT** in accordance with the terms of this Decision.[13]

IT IS SO ORDERED.

/s/ Brian H. Corcoran
Brian H. Corcoran
Chief Special Master

[12] Thus, this is not a case where the timeframe/overlap of vaccination and infection was tighter, making it far more difficult to tease out causality. *Cf. Xia,* No. 20-1924V, slip op. at 28 (child received flu vaccine *on the same day* she was taken to see treaters for particularly virulent infection, with clear record evidence of concerning infectious symptoms at that time).

[13] Pursuant to Vaccine Rule 11(a), the parties may expedite entry of judgment if (jointly or separately) they file notices renouncing their right to seek review.