

ALASKA WORKERS' COMPENSATION BOARD



P.O. Box 115512

Juneau, Alaska 99811-5512

DAVID RIFE,)
)
Employee,)
Claimant,)
)
v.)
)
ARCTIC CATERING AES ALASKA,)
L.L.C.,)
)
Employer,)
and)
)
ALASKA NATIONAL INSURANCE)
COMPANY,)
)
Insurer,)
Defendants.)

FINAL DECISION AND ORDER
AWCB Case No. 201701764
AWCB Decision No. 20-0043
Filed with AWCB Fairbanks, Alaska
on June 5, 2020.

The compensability of David Rife's (Employee) January 24, 2018; May 11, 2018; and December 26, 2018 claims was heard in Fairbanks, Alaska on February 6, 2020, a date selected on September 20, 2019. The parties' stipulation gave rise to this hearing. Employee's daughter, Summer Rife, appeared and represented Employee, who testified on his own behalf. Employee's physician, Scott McMahon, M.D., also appeared and testified on Employee's behalf. Attorney Nora Barlow appeared and represented Arctic Catering AES Alaska, L.L.C., and its insurer (Employer). Employer's Medical Evaluator (EME), Brent Burton, M.D., appeared and testified on Employer's behalf. The record closed at the hearing's conclusion on February 6, 2020.

ISSUE

Employee contends he was exposed to mold and mold toxins in January 2017, while cleaning the Ptarmigan Camp, where he was worked as the Head Cook, and this exposure caused him to suffer from Chronic Inflammatory Response Syndrome (CIRS), a water damaged building (WDB) illness. He claims injuries to his brain and lymphatic system and also contends his chronic sinusitis resulted from the mold exposure. Employee contends his claims for medical costs and temporary total disability (TTD) benefits are compensable under the Alaska Workers' Compensation Act (Act).

Employer contends there is no scientific evidence to support CIRS, a theory propagated by Ritchie Shoemaker, M.D., since the 1990s. It contends Dr. Shoemaker has created a network of "disciples" who advocate the idea that exposure to mold/biotoxins/mycotoxins cause neurological and musculoskeletal symptoms. The basic premise of CIRS, Employer contends, is that certain people have genetic susceptibility to mold, and even low doses of mold can lead to neurocognitive and musculoskeletal symptoms. It contends the diagnosis of CIRS involves a "cluster" of symptoms and biomarkers, but a review of relevant scientific literature finds no support for the idea that there is a gene that makes people susceptible to mold, and neither are there any scientific studies linking the biomarkers and neurocognitive and musculoskeletal symptoms to mold exposure. Employer contends courts have barred Dr. Shoemaker's opinions in challenges under *Daubert v. Merrell Dow Pharms., Inc.*, 509 U.S. 579, 113 S.Ct. 2786 (1993), since they are not sufficiently grounded in scientifically valid principles and methods, and they should not be considered here, either. It also contends Employee was diagnosed with severe obstructive sleep apnea, a condition not related to work, which better explains the symptoms for which Employee sought treatment, and requests Employee's claims be found not compensable.

Are Employee's claims compensable?

FINDINGS OF FACT

A preponderance of the evidences establishes the following facts and factual conclusions:

- 1) Prior to Employee's occupational mold exposure, he denied any significant health issues. (Health History Questionnaires, December 1, 2014; December 15, 2015).
- 2) On January 24, 2017, Employee contends he was exposed to mold and mold toxins while cleaning the Ptarmigan Camp, where he was worked as the Head Cook. (Claim, December 26, 2018).
- 3) On January 27, 2017, Beacon Occupational Health and Safety Services conducted a visual mold survey after the Ptarmigan Camp had been cleaned. Samples of potential mold were sent to an analytical laboratory for confirmation, but no mold was identified. (Bundy letter, February 7, 2017; Occupational Health Report, February 7, 2017).
- 4) On February 6, 2017, Employee was evaluated in Deadhorse, Alaska for headache, muscular pain in his back and chest, fatigue and nausea after cleaning an old camp that was full of items that "looked moldy" about five days previous. Employee thought his symptoms had resulted from mold exposure. He denied dizziness, vision changes, neck stiffness, focal or generalized weakness, cough, runny nose or nasal congestion, vomiting, diarrhea, rash or skin lesions. A chest x-ray, electrocardiogram (EKG), complete blood count (CBC) and a comprehensive metabolic panel (CMP) were all normal. The physician's assistant who evaluated Employee thought Employee's symptoms were unlikely the result of mold exposure since Employee did not have any allergic or respiratory complaints, did not present with any allergic or respiratory findings, and the exposure at the camp had occurred five days previous. Employee was instructed to rest and was released to regular work. (Fairweather Medical chart notes, February 6, 2017; X-ray report, February 6, 2017).
- 5) On February 7, 2017, Employee telephoned Mat-Su Health Services regarding an upcoming appointment he had with Susanne Dillon, M.D., for "mold poisoning." He described living in a camp "full of black mold," and reported severe headache, fatigue, nausea and mental foginess. (Telephone message, February 7, 2017).
- 6) On February 9, 2013, Dr. Dillon evaluated Employee, who described being exposed to "severe mold infestations" for 10 days at the Ptarmigan camp. Employee also stated the bedding he was supposed to use had been stored in plastic bags, and when he looked inside, he found dead animals, feces and feathers. Employee reported headache, inability to focus, fatigue and body pain involving his chest and back. He thought his headache "must be related to the exposure because he has never had headaches before this." Laboratory tests, including c-reactive protein, CMP,

CBC, were all normal. Dr. Dillon described Employee as being “extremely concerned,” because he had been “reading online and believed he was very sick.” Dr. Dillon thought Employee had been “a very reasonable person in the past and [she] certainly believed [Employee] believe[d] what he was saying,” but she did not think Employee’s symptoms were consistent with mold exposure because of the lack of respiratory symptoms. Dr. Dillon considered referring Employee to either an allergy clinic or a toxicologist and ordered repeat laboratory tests, which were all normal, save for glucose, which was slightly elevated. (Dillon chart notes, February 9, 2017; laboratory tests, February 14, 2017; referral letter, February 14, 2017).

7) On February 14, 2017, Employee reported experiencing new pain over his right maxillary sinus, which later resolved. Dr. Dillon consulted Eric Meier, M.D., at the Alaska Allergy and Immunology Clinic, who did not think allergy testing would be helpful given Employee’s lack of respiratory symptoms. Instead, Dr. Meier thought Employee might be suffering from “sick building syndrome” and he recommended Employee be referred to Mary DeMers, D.O., for evaluation. (Dillon chart notes, February 14, 2017).

8) On March 1, 2017, Dr. DeMers evaluated Employee, who reported fatigue, headache, nasal stuffiness, shortness of breath and “brain fog,” where he would forget what he was doing while performing simple tasks. He also reported sleeping well but waking up fatigued. Dr. DeMers ordered a magnetic resonance imaging (MRI) study to rule out sinus infection and brain abnormality and took Employee off work for two weeks. (DeMers chart notes, March 1, 2017; Review of Symptoms, March 1, 2017; Return to Work form, March 1, 2017).

9) On March 9, 2017, Gerald York, M.D., interpreted Employee’s brain MRI to show “Volumetric changes seen of the caudate heads bilaterally, in a pattern which can be seen in prior mold exposure.” Dr. York cited an article, *Structural brain abnormalities in patients with inflammatory illness acquired following exposure to water damaged buildings: a volumetric MRI study using NeuroQuant*, to support his impression. NeuroQuant Triage Brain Atrophy and General Morphometry reports were also prepared. (MRI report, March 9, 2017; NeuroQuant reports, March 9, 2017).

10) Richie Shoemaker, M.D. is the lead author of the article cited by Dr. York. (Ritchie C. Shoemaker, Dennis House, James C. Ryan, *Structural brain abnormalities in patients with inflammatory illness acquired following expo-sure to water-damaged buildings A volumetric MRI study using NeuroQuant*, *Neuro-toxicology and Teratology*, Sep.-Oct. 2014, at 45: 18-26).

According to Dr. Shoemaker, NeuroQuant is a computer program used in traumatic brain injury cases, which utilized data from an MRI to calculate volumes of 15 different brain areas. Dr. Shoemaker contends no one before him had utilized NeuroQuant to assess brain injury in persons with mold illness. (<https://www.survivingmold.com>, accessed on April 29, 2020; observations).

11) Dr. Shoemaker also operates a website, www.survivingmold.com. SurvivingMold.com includes a store, which offers “Shoemaker Protocol Certification” to medical practitioners for \$3,000; a SurvivingMold.com membership for \$19.50 per month; an online NeuroQuant analysis for \$25; Surviving Mold reference materials for \$150; Surviving Mold teaching modules for \$30 each; ebooks written by Dr. Shoemaker from \$9.99 to \$19.99; Surviving Mold slide presentations from \$5 to \$199; videos of Surviving Mold conferences from \$59.95 to \$299; a Mold Propensity Index assessment for \$265; and membership in a generic drug program. The website also provides a list of medical practitioners who are Shoemaker Protocol certified. (*Id.*).

12) On March 15, 2017, Employee reported sleeping eight hours per night with headache and nausea upon waking and continuing fatigue. Dr. DeMers assessed mold exposure with short term memory loss, citing the March 9, 2017 MRI, and concluded Employee was totally incapacitated from for one month. (DeMers chart notes, March 15, 2017; Return to Work form, March 15, 2017).

13) On March 21, 2017, Employee sought immediate medical attention for swollen glands above his clavicle. No lymphadenopathy was noted on physical examination. Employee was advised to use warm compresses as needed for comfort. (Newkirk chart notes, March 22, 2017).

14) On March 23, 2017, Paul Darby, M.D., who specializes in Occupational & Environmental Medicine, performed an Employer’s Medical Evaluation (EME). Employee’s reported symptoms included headache, memory problems, fatigue, chest pain, abdominal pain, back pain and nausea. Employee denied nasal stuffiness, eye irritation, wheezing, cough skin irritation, fever or shortness of breath in association with exposures. Employee also reported he suffers from mood swings and anxiety. On physical examination, Dr. Darby noted soft tissue at the base of the neck with palpable mass consistent with morbid obesity. Based on Employee’s c-reactive protein test, Dr. Darby concluded there was no evidence Employee had suffered systemic inflammation. Dr. Darby also reviewed Employee’s March 9, 2017 MRI and questioned whether it showed significant volume loss of the caudate heads, but requested the study be reviewed by a doctor at the University of Washington for clarification. He also pointed out many conditions have been associated with

caudate volume loss, such as obsessive compulsive disorder. Dr. Darby then wrote the following concerning the article cited by the radiologist who interpreted the MRI.

Using PubMed to search the terms “caudate” and “mold” brought up a single relevant article . . . cited by the radiologist The corresponding author of that article is Ritchie C. Shoemaker, MD, who, according to casewatch.org (an organization that advocates for evidence-based medicine), was reprimanded in 2013 by the Maryland State Board of Physicians after a complaint, stating “the Board has mandated protocols for alternative medicine practitioners to ensure prospective patients are fully informed of the nature of your practice regarding alternative medical diagnosis and treatments.” That a radiologist would cite a single article by a non-radiologist as if it were a consensus opinion, especially from an author of such ilk, raises questions regarding whether or not the radiologist is engaging in activism. [Employee’s] MRI should be reviewed by an academic neuroradiologist.

Following a normal physical examination and a history of symptoms inconsistent with mold exposure, Dr. Darby was unable to provide a diagnosis and concluded there was no objective basis for any limitations on Employee performing his regular job duties. (Darby report, March 23, 2017; Examinee Medical History, May 23, 2017).

15) On March 30, 2017, Employee saw Dr. DeMers and reported he had spoken with Jennifer Smith, N.M.D., who sent Employee information, including recommendations for “lots of blood work.” Employee also reported he had paid Dr. Shoemaker for a telephone consultation and Dr. Shoemaker was to send his recommendations to Employee. He was concerned about swelling in his neck because “Dr. Shoemaker stated the mold toxins attack the [illegible] parts of the body, including the brain and the lymph nodes.” Dr. DeMers diagnosed cervical lymphadenopathy and referred Employee for a chest x-ray, which showed no enlargement to suggest adenopathy and no active pulmonary process. (Referral Request, March 30, 2017; X-ray report, March 30, 2017). She also assessed “abnormal MRI suggestive of mold toxicity” and planned to order a “large number of blood tests recommended online in articles by Dr. Shoemaker.” Dr. DeMers prescribed Cholestyramine for Employee, which she described as a “medication used as a binder to mold toxin so it may be excreted in the stool and removed from the body.” (DeMers chart notes, March 30, 2017; Letter of Medical Necessity, March 30, 2017).

16) The Surviving Mold website recommends the off-label administration of Cholestyramine, which is an FDA approved medication for lowering cholesterol, as the first step in Dr. Shoemaker’s

treatment protocol for CIRS. (<https://www.survivingmold.com/treatment>, accessed on April 29, 2020).

17) On April 17, 2017, Dr. Shoemaker wrote Employee regarding their telephone consultation. Dr. Shoemaker began, “Please be advised that your brief consult with me was not for medical legal purposes.” He suggested Mold Specific Qualitative Polymerase Chain Reactions (MS-qPCR) testing to Employee, which would show “microbial amplification of the job site.” He also discussed Employee’s NeuroQuant report and his Visual Contrast Sensitivity (VCS) test, but could not “call CIRS” and did not think Employee’s symptoms met “the criteria for cluster analysis positivity.” Dr. Shoemaker concluded by urging Employee to undertake additional, unspecified, laboratory testing and to follow his treatment protocol on SurvivingMold.com. (Shoemaker letter, April 17, 2017).

18) SurvivingMold.com offers MS-qPCR laboratory testing services, which range from \$130 to \$500 each. (<https://www.survivingmold.com/store1/online-screening-test>, accessed April 28, 2020).

19) Employer provided the following explanation concerning immune response:

The complement system is an integral part of the immune defenses. It can be activated via immune complexes (classic pathway) or by bacterial polysaccharides (alternative pathway). The classic complement pathway consists of recognition, (C1q, C1r, C1s), activation (C2, C3, C4), and attack (C5, C6, C7, C8, C9) mechanisms with respect to their role in antibody-mediated cytolysis. C4 is one of the activation proteins of the classic pathway.

(Employer’s Hearing Brief, January 31, 2020 (citing www.neurology/testcatalog.org/show/c4 (Mayo Clinic Laboratories))).

20) On April 18, 2017, laboratory results showed Employee’s C4a level was 4920, which was high based on a reference range of 0-2830. The report included the following cautionary instruction for the C4a analysis: “This test uses a kit/reagent designated by the manufacturer as ‘for research use, not clinical use.’ It has not been cleared or approved by the U.S. Food and Drug Administration. The results are not intended to be used as the sole means for clinical diagnosis or patient management decisions.” The results also showed Employee’s C3a was 57, which was normal. The report included the following cautionary instruction for the C3a analysis: This test was performed using a kit that has not been cleared or approved by the FDA. . . . This

test should not be used for diagnosis without confirmation by other medically established means.” (Lab reports, April 18, 2017).

21) SurvivingMold.com contains a “Physician Order Sheet” with 35 lab tests that Dr. Shoemaker initially recommends for the diagnosis of CIRS, including C4a and C3a. (https://www.survivingmold.com/docs/Lab_orders_2017.pdf, accessed on April 29, 2020). According to SurvivingMold.com, C4a “has become the inflammatory marker of greatest significance looking at innate immune response in those with exposure to Water Damaged Buildings (WDB).” <https://www.survivingmold.com/diagnosis/lab-tests>, accessed May 4, 2020).

22) On April 18, 2017, Employee emailed Dr. DeMers, cryptically informing her, “They are Supraclavicular lymph nodes.” He sent Dr. DeMers two pictures he got from his “Google research” and requested “Dr. Andrew R. Pullman a head and neck specialist . . . look at it and decide if there any [sic] tests or labs that would prove a Mycobacterial/Fungal infection?” (Rife email, April 18, 2017; inferences drawn therefrom).

23) On April 24, 2017, Dr. DeMers referred Employee to be evaluated by Andrew Pullman, M.D., for localized swelling and a lump in the neck. (Referral Request, April 24, 2017). On physical examination, Dr. Pullman found no palpable masses, adenopathy or thyromegaly in the neck. Employee’s lateral neck supraclavicular area was fairly full on both sides and was felt to be soft tissue, with no localized lymph nodes or other masses. Dr. Pullman performed a transnasal flexible laryngoscopy and found no mold or fungal debris. He also reviewed Employee’s brain MRI and did not see any significant sinus disease but ordered a computed tomography (CT) study of Employee’s neck, which showed no mass or pathologic adenopathy. Mucosal surfaces were also observed to be normal. Dr. Pullman assessed “significant fungal exposure” but did not elaborate on the basis of his assessment. (Pullman chart notes, April 25, 2017; CT report, April 25, 2017).

24) On April 26, 2017, Dr. Darby reviewed updated medical records and concluded “there is no constellation of symptoms or signs that constitutes [sic] a medical diagnosis.” Since Employee denied having symptoms of mold exposure, such as nasal stuffiness, eye irritation, wheezing, cough, skin irritation, fever or shortness of breath, Dr. Darby did not think Employee met the diagnostic criteria for mold exposure. Instead, he thought potential causes of Employee’s headaches, difficulty focusing, nausea, fatigue and memory loss were an organic brain disorder, a neurologic problem or a psychiatric disorder. Dr. Darby again recommended a neuroradiologist

at the University of Washington review Employee's MRI, "since the radiologist who read this study in Alaska is biased towards Dr. Shoemaker's position, which is not based in peer reviewed medical evidence." (Darby addendum, April 26, 2017).

25) On May 1, 2017, Dr. DeMers reviewed Employee's April 18, 2017 laboratory results, which she thought were "suggestive of mold biotoxin." (DeMers chart notes, May 1, 2017).

26) On May 31, 2017, Employee reported his head had recently become very hot, which followed by a cold sweat. (DeMers chart note, May 31, 2017).

27) On June 30, 2017, Francis Wessbecher, M.D., who specializes in Neuroradiology, reviewed Employee's brain MRI and his qualitative assessment was the caudate volumes were normal. He noted mild mucosal thickening in the paranasal sinuses and acknowledged he is not familiar with the quantitative analysis performed on Employee's imaging or the NeuroQuant system. Dr. Wessbecher suggested an expert, who is more familiar with quantitative analysis or the NeuroQuant system review the MRI. (Wessbecher report, June 30, 2017).

28) On July 17, 2017, based on Dr. Wessbacher's June 30, 2017 report, Dr. Darby opined Employee's MRI does not support a postulated mold exposure finding. (Darby addendum, July 17, 2017).

29) On August 3, 2017, Employee requested Dr. DeMers refer him to Richard Blake, M.D., for his headaches. (Review of Symptoms form, August 3, 2017).

30) On September 6, 2017, Dr. DeMers noted Employee "was very concerned about recovering his health," and was "very stressed out." Employee requested a referral to John Boston, D.O., and told Dr. DeMers he had contacted a lymphedema surgeon "to see if he could help." Dr. DeMers planned on ordering "mold labs," including C4a, matrix metalloproteinase 9 (MMP-9), melanocyte-stimulating hormone (MSH) and vascular endothelial growth factor (VEGF). She was also going to consider Employee's requested referral to Dr. Boston. (DeMers chart notes, September 6, 2017).

31) C4a, MMP-9, MSH and VEGF are on the Physician Order Sheet at SurvivingMold.com (https://www.survivingmold.com/docs/Lab_orders_2017.pdf, accessed on April 29, 2020).

32) Laboratory results showed Employee's MMP-9 was 592, which was normal. His VEGF was 757, which was high based on a reference range of 62-707. Both results set forth the following cautionary instruction: "The results of this test are for research purposes only per the assay manufacturer. The performance characteristics of this assay have not been established. The result

should not be used as a diagnostic procedure without confirmation of the diagnosis by another medically established diagnostic product or procedure.” (Lab reports, September 8, 2017; September 14, 2017). Employee’s C4a was 1024, which was normal. The report sets forth the same cautionary instruction for C4a as the April 18, 2017 laboratory report. Employee’s MSH was 10.1, which was normal. The report sets forth the following cautionary instruction for that result: “[This test] has not been cleared or approved by the U.S. Food and Drug Administration.” (Lab report, September 12, 2017).

33) On October 17, 2017, Dr. DeMers referred Employee to Dr. Boston. (Referral slip, October 17, 2017).

34) On October 19, 2017, Employee told Dr. Boston he had researched “other treatment options” and was considering seeing a specialist in Arizona. Dr. Boston discussed “mainstream treatments” with Employee and explained he was “limited to the standards of medicine.” On physical examination, Dr. Boston found no palpable nodules in Employee’s neck, but noted increased cervical clavicular swelling. Upon examining Employee’s lymphatics, Dr. Boston found no cervical or axillary adenopathy. Dr. Boston diagnosed suspected exposure to toxic mold and recommended Employee continue with Colestid, since “[Employee] feels this was most helpful and I do not feel it will be harmful.” He also referred Employee for a course of physical therapy to address lymphedema. (Referral slip, October 17, 2017; Boston chart notes, October 19, 2017).

35) On November 9, 2017, Employee followed up with Nathan George, D.N.P., P.N.P., at Dr. Boston’s office. Employee complained of sleeping seven to eight hours per night but always feeling tired. He was concerned with ‘detoxing’ his body. Employee was also interested in lab work to check his kidneys, liver and thyroid, and thought his blood pressure was high because his body was fighting ‘toxins’ in his body. CBC, CMP and thyroid stimulating hormone (TSH) laboratory tests were all normal. (George chart notes, November 9, 2017 (quotations in original); lab reports, November 9, 2017; November 13, 2017).

36) On November 28, 2017, Employee “was still talking about seeing the specialist down south about mold exposure.” Employee contended he had a good sleep schedule – sleeping at least eight hours per night, but was waking up extremely fatigued. (Physical therapy chart notes, November 28, 2017).

- 37) On December 21, 2017, Dr. Boston planned to refer Employee for a neuropsychological evaluation on account of Employee's complaints of poor memory. (Boston chart notes, December 21, 2017).
- 38) On January 11, 2018, Employee reported he was sleeping well at night but feeling tired upon waking in the morning. He also stated he has a headache every morning. (George chart notes, January 11, 2018).
- 39) On January 23, 2018, Employee did not feel he had the mental or physical stamina to work and he requested an off work note from nurse practitioner George, who agreed to provide a note stating Employee was being treated, but he could not state with certainty that Employee was disabled from work. (George chart notes, January 23, 2018). Nurse practitioner George's note explained, "It is very difficult to identify and substantiate [mold] exposure and its possible side effects." (George letter, January 23, 2018).
- 40) On January 24, 2018, Employee sought medical benefits and a finding of unfair or frivolous controversion. (Claim, January 24, 2018).
- 41) On February 8, 2018, Employee brought nurse practitioner George some paperwork from a Department of Health and Human Services, including an assessment that recommended a Sleep Study and some lab work be ordered. Nurse practitioner George filled out a work status note with diagnosis of benign hypertensions, chronic headache disorder, neck swelling, fatigue and exposure to molds. He limited Employee to six hours work per day and indicated Employee had been referred to a neurological evaluation of his headaches. (Health Status Report form, February 20, 2018).
- 42) On February 12, 2018, Employee completed patient intake paperwork for Jennifer Smith, N.M.D., at the Lifestream Wellness Clinic in Scottsdale, Arizona because he was concerned about "Toxin overload" and wanted to "rebalance his body." (Confidential Patient Intake form, February 12, 2018).
- 43) According to the SurvivingMold.com, Dr. Smith is a Shoemaker Protocol certified medical practitioner. (<https://www.survivingmold.com/shoemaker-protocol/Certified-Physicians-Shoemaker-Protocol>, accessed on April 29, 2020).
- 44) On April 16, 2018, a laboratory report from Microbiology Dx showed Employee had tested "MARCoNs positive." Citing an article written by Dr. Shoemaker, the report explains MARCoNS is a multiple antibiotic resistant coagulase-negative (coag neg) staph that reside deep in the nasal

passages and is common in biotoxin illness. The test had been ordered by Dr. Smith. (Lab report, April 16, 2018).

45) SurvivngMold.com provides a link to the Microbiology Dx and explains cultures are processed on a fee-for-service basis only. The cost is \$50 for a negative culture and \$85 for a positive one. (<https://www.survivingmold.com/diagnosis/lab-orders>, accessed on May 5, 2020).

46) Other laboratory results from analysis performed at the same time as the MARCoNS test showed Employee's MMP-9 was 576, which was normal based on a reference range of less than 984; TGF was 1194, which was normal based on a reference range of 867 - 6662; ADH was less than 0.8, which was normal based on a reference range of 0.0 – 115; VEGF was 24, which was normal based on a reference range of 0 – 115; MSH was 15, which was normal based on a reference range of 0 – 40 and C4a was 6471, which was high based on a reference range of 0 – 2830. Employee's laboratory results also included Human Leukocyte Antigen DRB testing (HLA-DRB). (Lab report, April 10, 2018).

47) The laboratory report cautions MMP-9, ADH, VEGF and MSA results are for “research purposes only,” and “should not be used for treatment or diagnostic purposes without confirmation of the diagnosis by another medically established diagnostic product or procedure.” The report cautions the TGF reference range are “not diagnostic thresholds,” and it contains the same cautionary instruction set forth above for C4a. (*Id.*).

48) On May 1, 2018, Dr. Smith diagnosed Employee with CIRS based on a physical finding of cervical and thoracic lymphadenopathy, Employee's NueroQuant report and various “abnormal” lab reports, including “MMP-9 576 H, TGFβ1 1194 N, ADH <0.8 L, VEGF 24 L, MSH 15 L, C4a 6471 H, MARCONS +, failed VCS.” She also opined Employee's HLA-DRB testing showed “genetic multisuseptibility [sic] for biotoxins, including mold.” Dr. Smith explained she was treating Employee's immune “dysregulation” with the Shoemaker Protocol, and opined Employee was medically unable to sustain employment because of adverse health effects he sustained from toxic mold exposure at work. She anticipated Employee would improve within the next 24 months. (Smith letter, May 1, 2018).

49) On May 10, 2018, Brent Burton, M.D., who specializes in Medical Toxicology and Environmental Medicine, performed an Employer's Medical Evaluation, (EME). Employee's symptom complaints were constant headache and memory dysfunction. Employee provided Dr. Burton with a list of 18 supplements he was receiving from Dr. Smith's clinic. The list was

comprised of naturopathic remedies, such as organic celery and organic beets, none of which had any “pharmacologic significance” in Dr. Burton’s opinion. Upon review of the medical record, Dr. Burton observed Dr. DeMers did not specify her rationale for ordering Employee’s September 12, 2017 laboratory tests. He found Employee’s symptoms, exam findings and diagnostic studies inconsistent with any medical condition arising from mold exposure. Particularly notable, in Dr. Burton’s opinion, Employee experienced no initial symptoms while working at Ptarmigan Camp and he nearly completed his work assignment at the campsite prior to the symptoms’ onset. Neither did Employee report any significant respiratory symptoms. Dr. Burton explained, in significant concentrations, airborne mold can result in an allergic response with symptoms of rhinitis or possible asthmatic symptoms in susceptible individuals, but Employee denied experiencing respiratory symptoms while at the work site. Although Employee consulted with numerous medical providers, none identified any reported symptoms, objective findings, or diagnostic studies indicative of mold exposure. Dr. Burton found it “unfortunate” Employee’s medical providers “uncritically” accepted Employee’s self-diagnosis and did not “engage in an appropriate or meaningful medical evaluation to include the creation of a differential diagnosis, rather than attempting to support [Employee’s] belief system.” “It should have been apparent that [Employee’s] complaints of morning headache, fatigue, cognitive complaints, depression and irritability are inconsistent with mold exposure, but instead, most likely arose as a result of obstructive sleep apnea, particularly in a setting of [Employee’s] substantial obesity and thick neck.” Dr. Burton wrote, “Dr. Shoemaker is a notorious proponent of ‘mold illness,’” and his “theories and practice have no scientific support.” Dr. Burton also thought Dr. Shoemaker’s theories and practice lie outside the mainstream of scientific medical practice. He described Dr. Shoemaker’s reliance on an MRI study indicating volumetric changes in the caudate heads to support a conclusion of mold exposure as “junk science.” Dr. Burton thought, if Dr. Shoemaker’s findings had any merit, there would be support in the scientific literature beyond a single report by Dr. Shoemaker. Dr. Burton offered Employee an opportunity to undergo additional diagnostic testing to better understand his current medical condition; however, Employee refused because Dr. Burton “was hired by the insurance company.” (Burton report, May 10, 2018).

50) On May 11, 2018, Employee again sought medical benefits and an unfair or frivolous controversion finding. (Claim, May 11, 2018).

51) On May 22, 2018, upon reviewing Dr. Smith's May 1, 2018, CIRS diagnosis, Dr. Burton stated, "the purported condition labelled 'CIRS' is not a legitimate medical diagnosis, i.e. it is not recognized in the International Classification of Diseases (ICD9) and diagnostic data do not exist." (Burton addendum, May 22, 2018).

52) On June 4, 2018, Employee reported an increase in his headaches and fatigue, and also discussed the EME with Dr. Boston, including Dr. Burton's recommendation for a sleep study. Dr. Boston wrote, "I'm not sure what he has and I am not 100% convinced it is all mold exposure." Dr. Burton referred Employee to an Ear, Nose and Throat doctor to have his sinuses washed and a culture taken. He also referred Employee for a sleep study, which Employee refused because "he does not feel he has this," and "this would hurt his case." Dr. Boston observed, Employee "has had a pretty complete work up over the last couple of years without a specific diagnosis," and stated he agreed "with some but not all that was done" at the EME. (Boston chart notes, June 4, 2018).

53) On August 27, 2018, Dr. Boston spoke to Employee again about sleep apnea, but Employee "does not feel that this contributes to his problem and has declined apnea testing several times." At Employee's request, Dr. Boston referred Employee to a "mold care provider" in New Mexico. (Boston chart notes, August 27, 2018; Rife note, August 27, 2018; Referral Form, August 27, 2018).

54) On October 9, 2018, Employee saw Scott McMahon, M.D., at Whole World Health Care in Rosewell, New Mexico, who administered the "Shoemaker VCS Aptitude Test." (McMahon chart notes, October 9, 2018; Test sheet, October 9, 2018). Laboratory tests showed Employee's Adrenocorticotrophic Hormone (ACTH) was 31, which is normal based on a reference range of 6-50; Arginine Vasopressin (AVP) was less than 1.0, which was low based on a reference range of 1.0-13.3; Osmolality was 286, which was normal based on a reference range of 278-305; Leptin was 15.5, which is normal based on a reference range of 8.0-38.9; Antigliadin Ab (IgA) was 5, which is negative based on a reference range of less than 20; Antigliadin Ab (IgG) was 2, which is negative based on a reference range of less than 20; Anticardiolipin Ab (IgA, IgG, IgM) was less than 11, which is negative based on a reference range of less than 11; Anticardiolipin Ab (IgG) was less than 14, which is negative based on a reference range of less than 14; and Anticardiolipin Ab (IgM) was 14, which is indeterminate based on a reference range of less than 12. The

laboratory reports states that the AVP and Leptin tests have “not been cleared or approved by the FDA.” (Lab reports, October 9, 2018).

55) According to [SurvivingMold.com](https://www.survivingmold.com), Dr. McMahon is a Shoemaker Protocol certified medical practitioner. (<https://www.survivingmold.com/shoemaker-protocol/Certified-Physicians-Shoemaker-Protocol>, accessed on April 29, 2020).

56) An October 10, 2018, nasal culture was positive for *Staphylococcus hominis* (coag neg). Dr. McMahon prescribed Employee a nasal spray. (Lab results, October 10, 2018; Daily Sheet, October 15, 2018).

57) On December 18, 2018, Dr. McMahon diagnosed Employee with CIRS. (Health Status Report form, December 18, 2018).

58) On December 26, 2018, Employee sought temporary total disability benefits. (Claim, December 26, 2018).

59) On March 21, 2019, Employee requested Dr. McMahon refer him to Susanne Dillon, M.D. so that lab work ordered by Dr. McMahon would be covered by Alaska Medicaid. (Employee email, March 31, 2019).

60) On April 1, 2019, Employee presented to Dr. Dillon, who understood him to be a “CIRS patient,” to have laboratory tests done for Dr. McMahon. Dr. Dillon’s chart notes indicate Employee had been hypertensive since 2012. (Dillon chart notes, April 1, 2019). Employee’s triglycerides were 415, which is high based on a reference range of 0-149. Dr. Dillon counselled Employee on diet, exercise and Omega 3 fatty acids. Employee’s VEGF and MMP-9 were normal, and his Anticardiolipin IgA, Anticardiolipin IgG and Cardiolipin IgM were all negative. The laboratory report for VEGF contains the same “for research purposes only,” “not cleared or approved by the FDA,” and “should not be used as a diagnostic procedure” cautionary instructions set forth in earlier laboratory reports. (Lab reports, April 9, 2019).

61) On April 30, 2019, Employee had an elevated blood glucose level. Dr. Dillon counselled Employee on diabetes mellitus. (Dillon chart notes, April 30, 2019). Employee’s C4a and TGF were normal. The laboratory results contain the same “for research purposes only,” “not cleared or approved by the FDA,” and “should not be used as a diagnostic procedure” cautionary instructions set forth in earlier laboratory reports. (Lab reports, April 30, 2019).

62) On May 21, 2019, Employee underwent a sleep study and was diagnosed with severe obstructive sleep apnea with moderate to severe desaturations, as well as possible periodic limb

movement disorder. Continuous Positive Airway Pressure (CPAP) or surgical intervention was recommended. (Porterfield report, May 21, 2019.

63) On July 12, 2019, Edward Holmes, M.D., who specializes in Occupational Toxicology, performed an SIME. Employee reported his chief complaint as follows to Dr. Holmes:

“Actually my body feels pretty good.” He states that he has done really well lately and has rare headaches. “Occasionally I get a headache if I get really angry or I concentrate real hard on something for a long time and stress.” He rarely has a headache if he “stays calm” and doesn’t get mad at people at church or his wife. The “Lymph” swelling in his neck is all gone; he rarely notices it but it feels full above the clavicles at times. He now has noted severe panic attacks where he gets really anxious, upset, angry and has temper outbursts. He had one last night when he arrived at the airport and they lost his bags. He is sleeping much better and awakens more refreshed since wearing the CPAP for his severe obstructive sleep apnea syndrome over the last month or so. He says the machine was recording 47 events per hour at first and now on CPAP only 6 events per hour. The sleep doctor told him he is doing much better.

Employee also provided a history of his current illness to Dr. Holmes and described the bedding he was supposed to use at the camp had been stored in bags that were contaminated with rodent remains and bird feathers. When Employee told his daughter he was experiencing brain fog, which he described as difficulty remembering names, she thought he had mold poisoning. Employee’s history of present illness continued:

He continued to look up things about mold on the internet, and based upon the salacious reports on various websites was understandable very nervous about permanent toxicity to his organs and brain; his headaches worsened. He insisted on specialist referrals. . . . As he continued his Google search regarding mold toxicity he came across Dr. Shoemaker’s website survivingmold.com and contacted him. He got a list of blood tests from them and took them to his Dr., but she refused to order them. He was eventually referred for an MRI and he took in papers and asked the MRI doctor to do the NeuroQuant technique recommended by Dr. Shoemaker. He told the MRI folks he had been poisoned by mold. At this point in time he had headache and “brain fog” described as fatigue, and forgetting recipes and names. He still did not have “lymph swelling” in the neck. He finally picked a couple of labs to do from Shoemaker’s list and paid for them himself at the lab. He was upset with Dr. Demers for not ordering the labs and was transferred to Dr. Boston at his request. Dr. Boston did order more of the labs for him to try to establish that he had some type of mold poisoning. The labs were per Dr. Shoemaker’s website and not traditional labs for detecting mold infection or toxicity. He was referred for an IME with Dr. Darby and the day before flying out noticed swelling above the clavicles. This made him quite anxious and he made

several calls and attempts to be seen. He was eventually seen by a Dr. in Dillon's office and was told there was fullness but they couldn't feel lymph nodes and that he could safely travel. He saw Dr. Darby and was not happy with that visit result. Dr. Darby didn't seem to agree he had mold toxicity. He was anxious about the supraclavicular swelling so he got on Google and found pictures and determined he thought his lymph nodes and system were swollen due to mold toxicity after reading about serious systemic fungal infections and lymphadenopathy. He sent this to Dr. Demers. He was sent to a PT specialist that does lymph massage and it helped improve the swelling above his clavicles. Dr. Demers tried to give him 14 different pills and supplements and he refused to take them all. He read about side effects and stopped most of them. He was concerned about his organs. He did a bunch of research on Google and found many supplements and juicing recipes and ancient Chinese remedies that he tried and Japanese tea. All this seemed to help a bit but he liked the juicing the most and it seemed most effective. He was sent for an ENT consult and had a procedure to look up into his nose and sinuses and they found nothing but told him "he had a good dose of mold." He was recommended to have a nasal irrigation treatment in the record but he didn't do it because he was never informed. He eventually saw a naturopathic doctor (Smith) in Arizona and was told he had mold toxicity throughout his body. He was there from open to close in their office for three straight days getting various tests and IV therapies. They took out his blood in a tube and put it under an ultraviolet light and then injected Ozone and put the blood back in his body. He had one IV for the Ozone in one arm and another IV for NAD in the other arm for 3 days. They did a swab of his nasal cavity and cultured multidrug resistant Staph per his report. He was also given some holistic therapy including rocks placed on his chest and a wand waved over his body. He felt that after leaving Arizona it didn't really help overall as he still had the symptoms; same lymph swelling and the same headaches and brain fog. He was able to buy a 2 month supply of the supplements they recommended for \$1200 with the help of a friend and then refill those for 2 more months. It was a full regimen of various "natural" supplements. Today he really describes no improvement in his symptoms either. He changed his diet and had no bread and no dairy and also had no benefit. He decided after reading on the internet to pursue Chinese medicines, Japanese tea and Celery juicing. After starting the juicing he says he felt better than before but not resolved He was sent in May 2018 to a Dr. Burton for a toxicology consult. He says he looked him up on the internet and the guy who came in the room was not the same one in the picture. It scared him to death. He was afraid he "was going to inject me with AIDS or something." He said it was the worst experience and the most evil person he had ever met. Dr. Burton told him he had sleep apnea and needed a sleep study. Sometime during all of this he asked his doctor for a prescription for cholestipol and started on that. He also got Chaga mushrooms off trees in Alaska and self-medicated with that for a period of time (interestingly Chaga mushrooms are fungus). He still did not feel better so went to New Mexico and saw Dr. McMahon and was told he had CIRS (Chronic inflammatory response syndrome an unsubstantiated condition used by mold advocacy groups) and mold toxicity. He was given a recipe for some compound pharmacy products on 1/7/19. These were given for nasal

irrigation/injection. He had to send back East to a special pharmacy to get them. He used them for three months. The nasal medication helped more than anything and he started to have resolution of his headache and other symptoms. The compound pharmacy product appears to have been including at least Vasoactive nasal peptide, BEG nasal spray and Cholestyramine pure powder but he wasn't certain of all the ingredients. At about this same time he also came to the realization that he "needed to forgive everyone for what they had done" to him and just "let it go" and "turn it over to God". This was a very productive coping strategy for his well being.

At this point, he began to feel well in April 2019 and has done very well physically since that time. He has a very positive outlook and attitude and is glad he is doing better. He went back to Dr. Dillon and got regular treatment for his hypertension and also eventually got a sleep study ordered in May 2019. He had the sleep study and they discovered he had severe obstructive sleep apnea. He says this isn't just because of being overweight. He did some personal research on the internet and found that mold toxins can cause you not only to not be able to lose weight but to have sleep apnea "because thin people get sleep apnea also." He started the CPAP on or about 6/1/19. He has been using it since then and sleeps better. As noted, he reports that he had a massive reduction in sleep related events on his monitor after starting CPAP (data not supplied). He also notes he had his first dream that he can remember since being a kid the very first night he slept with CPAP (indicating a deeper state of sleep than he had been experiencing for some time).

Currently he has no income and has applied for SSA disability and is awaiting resolution of that claim. He has not worked since 2/7/17. He sold his trailer, ATVs, truck, etc. and some parcels of land to survive. He now has no more muscle, back or extremity pains. He has no more lymphadenopathy. He has no more significant headaches; mild occasional only. When asked why he doesn't work now since most of his symptoms are gone from mold related physical concerns, he stated he isn't fit to be around people because he gets anxious and has anger outbursts at the least little frustration. He can't be around people at church or he gets angry and goes off on them. He does the same thing to his wife. He feels extreme anxiety and fear along with some depression at times (not suicidal). He also feels like he has panic attacks that come with stressors. He feels that his Google research has shown that mold can cause sleep apnea, and anxiety and psych symptoms. He feels that his body is not genetically able to "fight mold" so he got sick. [Note: We have no information that any other cleanup workers got similar symptoms]. He realizes that mold doesn't live well in 40deg [sic] below zero tundra but he feels that all the foreign workers bring in toxic mold species and cross contaminate each other and the camps.

He feels subjectively that he has some word finding problems but none were evident in our nearly 2 hour interview. He feels he has problem solving difficulties like when the garage door wouldn't go down, he couldn't figure out why (the sensor was having an issue). He wanted to read me a statement about 116 studies from

2011 to 2018 showing adverse health effects from mold exposure that had been prepared for him.

Following his examination of Employee and a review the medical records, Dr. Holmes concluded:

There is no current evidence supportive of any mold related disease and laboratory tests verify Employee has no signs of infection with, or hypersensitivity to mold. He has no respiratory symptoms. He has no blood markers or systemic symptoms suggestive of infection and he has no liver or renal finding suggestive of toxicity. He has no symptoms suggestive of allergy or asthma and no objective respiratory disease on physical examination. He has no evidence whatsoever of any chronic inflammatory disease. . . . There is no generally accepted diagnosis called CIRS in the toxicological community.

Dr. Holmes thought Employee's complaints of fatigue, tiredness, headaches, brain fog and word finding difficulties are all explained by Employee's established diagnoses of severe obstructive sleep apnea, hypertension, hypertriglyceridemia/hypercholesterolemia, obesity and pre-diabetes. Of these, the substantial cause of Employee's disability or need for medical treatment was obstructive sleep apnea. Dr. Holmes further opined:

Employee had a historical and current evidence of anxiety disorder and extreme concern for his health and safety, which was enhanced, inflamed and perpetuated by a constant barrage of false information coming from the internet and websites regarding supposed harmful affects [sic] to mold exposure. . . . It is pleasing to see he has found symptomatic (dramatically so) and may have broken the cycle of fear anxiety, false diagnosis, leading to more fear, etc. that many of these types of patients find themselves in after reading inaccurate and invalid information on the internet; often written by advocates rather than independent scientists.

Dr. Holmes thought Employee should undergo a psychiatric evaluation for his anxiety, which was not toxin related, to determine whether Employee would have any work restrictions. (Holmes report, July 12, 2019).

64) On August 16, 2019, Daniel Raybin, M.D., who specializes in Occupational Lung Diseases, performed a Second Independent Medical Evaluation (SIME). He administered a pulmonary function test that was normal with no airflow limitation. Upon his records review, Dr. Raybin observed Employee's April 10, 2018 and April 12, 2018 laboratory results showed his MMP-9, ADH, VEGF and MSH were within normal ranges. He also noted CIRS is not listed as a diagnosis in ICD10. Dr. Raybin diagnosed obstructive sleep apnea, obesity, hypertension,

hypertriglyceridemia, and prediabetes, as documented in the medical record, as well as difficulty in concentration, headache, memory difficulties and irritability and mood swings, based on Employee's reported symptoms. Dr. Raybin concluded obstructive sleep apnea, and not the January 24, 2017 work injury, was the substantial cause of Employee's disability or need for medical treatment, because mold exposure does not cause obstructive sleep apnea. Rather, obesity and male gender are known causes of obstructive sleep apnea, according to Dr. Raybin. He also noted obstructive sleep apnea can cause morning headaches, worsen memory and cognitive defects, and impair executive function. Citing the AMA Guides, impairment disorders that might arise from sleep disorders also include irritability and interpersonal and social problems. Dr. Raybin thought Employee's reported neuropsychological symptoms, including irritability, mood swings might prevent him from interacting with coworkers, and his inattention, difficulty concentrating and memory problems might prevent him from performing job tasks, so he should undergo neuropsychological testing to determine his fitness to return to work. Dr. Raybin found the preponderance of scientific evidence is that mycotoxins/biotoxins do not cause the symptoms Employee reports. After searching PubMed, which did not produce any medical literature supporting the condition Dr. Shoemaker describes as CIRS, he concluded that diagnosis not generally accepted in the medical community. To the contrary, Dr. Raybin found "substantial" medical literature that argues against Dr. Shoemaker's theory of mold related illnesses caused by mycotoxins/biotoxins. He then cited five articles, summarized them, including quoted passages, and set forth the opinions expressed in each article. Only one of the five cited articles supported Dr. Shoemaker's theory, while the other four did not, but Dr. Raybin found that article offered no critical analysis of the studies it cited. He also reviewed and set forth a lengthy critique of Dr. Shoemaker's article, *Structural brain abnormalities in patients with inflammatory illness acquired following exposure to water damaged buildings: a volumetric MRI study using NeuroQuant*. This study examined 19 patients, two of whom did not meet case criteria, and all of whom reported neuropsychiatric difficulties, such as difficulties with concentration and ability to mentally focus. The authors used their own population of 18 controls to assess the volumetric data for all regions mapped by NeuroQuant. Dr. Raybin noted the controls did not have neuropsychiatric symptoms, and concluded, to the extent Dr. Shoemaker's study was valid, it shows that some patients with neuropsychiatric symptoms may have lower volumes of gray matter in the caudate nucleus. The study did not show that diminished size of the caudate nucleus was caused by mold exposure. Dr.

Raybin's other concerns about the study included, the small number of patients and controls; NueroQuant's lack of control data for the caudate nucleus; and the lack of scientific confirmatory reports in PubMed. Dr. Raybin is not aware of any scientifically validated treatment plans for detoxification of mold/mycotoxin related illnesses. (Raybin report, August 16, 2019).

65) At a September 20, 2019 prehearing conference, the parties agreed to a February 6, 2020 hearing on the compensability of Employee's claims. Employer contended, if Employee's claims were found compensable, benefits would be paid accordingly. (Prehearing Conference Summary, September 20, 2019).

66) On October 25, 2019, laboratory results showed Employee's MMP-9 and ADH were normal. The laboratory results contain the same "for research purposes only," and "should not be used as a diagnostic procedure" cautionary instructions set forth in earlier laboratory reports. Employee's ACTH was also within reference range. (Lab report, October 25, 2019).

67) On December 9, 2019, laboratory results showed Employee's ADH and Osmolality were normal. The laboratory results contain the same "for research purposes only," and "should not be used as a diagnostic procedure" cautionary instructions set forth in earlier laboratory reports. (Lab report, December 9, 2019).

68) On January 14, 2020, Dr. Holmes testified regarding his SIME report, where he concluded Employee suffered from symptoms characteristic of obstructive sleep apnea. Holmes depo., January 14, 2020 at 11-12). Employee also had several other conditions and may have had "some anxiety component going on." (*Id.* at 12). Dr. Holmes ruled out mold exposure as a cause of Employee's symptoms. (*Id.*). Obstructive sleep apnea explained many of the symptoms of which Employee was complaining. "They were classic," Dr. Holmes said. (*Id.*). Employee also presented a history consistent with having an anxiety disorder, which explains some of Employee's symptoms, such as outbursts, difficulty controlling his temper, as well as some of his other symptoms. (*Id.* at 13-14). Usually, mold will cause respiratory symptoms, like those that are associated with hay fever. (*Id.* at 15). Mold can also cause actual infections of the body, as well as toxin-related illness if an individual consumes a substantial amount of mycotoxin. (*Id.*). Mycotoxin is a generic terms for toxins that are secreted by fungal elements of mold. (*Id.*). Employee did not exhibit any symptoms consistent with the three types of mold illness. (*Id.* at 16). CIRS is not a commonly accepted diagnosis in the medical toxicological community. (*Id.*). Dr. Holmes is not aware of any literature from a reliable academic or peer-reviewed source that

would substantiate CIRS as a diagnosis. (*Id.*). He is only aware of some published papers on CIRS by advocacy groups. Dr. Holmes usually goes to PubMed to find peer-reviewed medical literature. (*Id.* at 16-17). He has never heard of using a brain MRI to diagnose mold exposure. (*Id.* at 23). Dr. Holmes, continued, “I mean . . . nearly 30 years of practice, I have never heard of being able to diagnose mold exposure by an MRI. It was a little bit surprising.” (*Id.*). Dr. Shoemaker’s NeuroQuant study was “a very small study written by an advocate of mold-related illness with very little support scientifically.” (*Id.*). Employee’s MRI is “absolutely not” a way to diagnose mold exposure. (*Id.* at 24). Dr. Holmes, stated, “Well, my opinion is that it’s nearly irresponsible to try and diagnose it related to mold based on an MRI finding. You cannot diagnose causation on a finding on an MRI with regard to mold by just looking at an MRI.” (*Id.* at 65). Laboratory tests for C4a are not clinically useful because they fluctuate dramatically in each individual and can fluctuate on a daily basis based on what you are eating, or breathing, or to what you are exposed. (*Id.* at 26). Laboratory tests for VGEF are also not something that are clinically useful for diagnosing mold illness. (*Id.* at 32-33). Dr. Holmes is not aware of any of the components Dr. Smith’s prescribed as being clinically useful or validated treatments for mold infection or illness. (*Id.* at 33). In responding to a question about an autoimmune response to mold, Dr. Holmes pointed out, “We are all breathing mold right now in this room. There are molds everywhere around us. We don’t get sick from these molds.” (*Id.* at 37). Just inhaling mold would not cause inflamed lymph nodes, unless there was an infection. (*Id.* at 43). There is no good data to support neurologic system damage from exposure to mold. (*Id.*). There is no association between mold exposure and sleep apnea. (*Id.*). Sleep apnea does not usually cause pain over the right maxillary sinus, (*id.* at 62); swollen lymph nodes, deep lower back pain, (*id.* at 75); facial flushing or cold, clammy hand sweats, (*id.*); or mucosal thickening, (*id.* at 76). People who are 58-years old may have symptoms from a variety of issues. (*Id.* at 89). It is a fallacy to attribute every symptom that arose after the mold exposure to the mold exposure. (*Id.*). Sleep apnea can go undiagnosed for years and years. Sleep apnea went undiagnosed with Employee until May 2019 though he was clearly exhibiting symptoms of it. (*Id.* at 90).

69) On January 17, 2020, Employer filed seven witness statements from employees who worked at Ptarmigan Camp during the same time frame as Employee. The witnesses largely state that they did not see any dead animals or leaking sewage at Ptarmigan Camp and were provided with masks

and gloves for cleaning, although one witness stated he saw a bag of linen that contained a dead animal, likely a shrew. (Employer's Notice of Filing, January 17, 2020; observations).

70) On January 31, 2020, Dr. Raybin testified his work is predominantly clinical practice and less than 10 percent of his work involves serving as an expert medical witness. (Raybin depo, January 31, 2020 at 8). He has participated in other cases that have involved mold exposure, but this case is the first one where mycotoxin exposure has been alleged. (*Id.* at 11). Dr. Raybin is trained as a medical scientist, which involves evaluating medical literature, so he is familiar with the effects of mold exposure in regards to asthma, but he was not familiar with Employee's diagnosed problems involving mycotoxins. (*Id.*). Mold can affect the pulmonary system by acting as an allergen and causing a person to become sensitized to it and develop asthma, and there is a variant where a person becomes colonized with mold and they develop asthma-like symptoms. (*Id.* at 12). Dr. Raybin had been doing some reading for his continuing education and came across a disease called systemic exertion intolerance disease, which he formerly knew as chronic fatigue syndrome. (*Id.* at 13-14). He thinks Employee presents with many symptoms of this disease and it would be reasonable to add it as a diagnosis for Employee. (*Id.* at 14-15). Dr. Raybin still thinks obstructive sleep apnea is contributing to Employee's symptoms, as well. (*Id.* at 16). Mold can cause other allergic reactions, including rhinitis. (*Id.* at 18). Most medical research is done using PubMed. Dr. Raybin did not find any scientific literature in PubMed to support the idea that the HLR-DR gene mutation makes some people experience greater difficulty with mold. (*Id.* at 27). He also testified concerning Dr. Schoemaker's use of biomarkers to prove one has been exposed to mycotoxins. (*Id.* at 28-29). Someone with high C4a wouldn't tell him much about a patient, it just indicates there's something inflammatory going on (*Id.* at 29). Dr. Raybin had not heard of a VCS test before. (*Id.* at 30). While some of Employee's providers documented swelling above the clavicles, the CT scan showed Employee did not have swollen lymph glands. (*Id.* at 30-35). Whatever Employee's swelling was, it was not the lymph glands. (*Id.* at 35). While MMP-9 is a valid test for other diseases, Dr. Raybin does not know of any association with mold. (*Id.* at 36). He reviewed Dr. Shoemaker's article about using NeuroQuant and found it to be filled with selection bias. (*Id.* at 40-41). The authors also "made their own controls up" by studying a limited number of patients to decide what was normal. (*Id.* at 42). Small studies have less scientific and statistical validity. (*Id.* at 43). Dr. Raybin searched PubMed and could not find any scientific reports that confirmed Dr. Shoemaker's article. (*Id.*). He also performed a PubMed search on for

CIRS and there is “nothing on that topic.” (*Id.*). Dr. Raybin does not think CIRS is a generally accepted term in the medical community. (*Id.*). MARCoNS is not a fungus; it’s a bacteria. (*Id.* at 61). The findings of MARCoNS in Employee is not evidence of a fungal infection, rather it means Employee is colonized by bacteria. (*Id.*). Dr. Raybin has read a lot about sleep apnea and he has never seen mold exposure listed as a cause of sleep apnea. (*Id.* at 67).

71) At hearing, Employer contended this case would be decided on expert opinions and the supporting science. (Employer’s Hearing Brief, January 31, 2020). Employee similarly contended, “The problem faced by [Employee] was that his injury is not like a broken arm or leg. [Employee’s] [medical] problem is more complicated and harder to see.” (Employee’s Hearing Brief, January 31, 2020).

72) At hearing, Employee contended his severe obstructive sleep apnea diagnosis does not explain all the symptoms of which he has complained since his work at Ptarmigan Camp. (Employee’s Hearing Brief, January 31, 2020).

73) At hearing, Dr. McMahon testified he is a pediatrician and about 10-years ago he began studying mold and mycotoxins. He was certified by Dr. Shoemaker in 2013 and has seen roughly 1,500 people with mold-based illnesses. Dr. McMahon saw Employee in October 2018 after a colleague had diagnosed Employee with CIRS because his colleague does not have prescription privileges in her state. Employee had 23 of the 37 diagnostic symptoms of CIRS and six of the seven physical findings for CIRS. He and Dr. Smith ordered some lab tests, which showed Employee had six abnormal results out of nine. There are three different methods by which CIRS can be diagnosed, and Employee meets all three criteria. Dr. McMahon “came away with that saying, ‘You have Chronic Inflammatory Response Syndrome.’” Although Employee has improved under his treatment, he still has cognitive issues where he cannot perform executive functions required for him to return to his previous job. One of Employee’s lab tests was for a genetic predisposition for CIRS. He had haplotypes 4353 and 12352b. “Both of those are considered amongst the worst haplotypes that you can have.” Employee’s ADH was low on two occasions, and his MMP-9 was elevated on three occasions. Employee has been tested twice for MARCoNS and had them both times. Employee had an elevated C4a of 6471; normal is up to 2832. He also had low ASH. Normal should be 3581; Employee’s was 15. Sleep apnea does not account for these lab results. Employee also failed a VCS test, which would not be affected by sleep apnea. All of these tests are affected by CIRS. Fifteen to eighteen years ago, some

publications featured by some prominent societies, societies that no longer stand behind these studies, suggested exposure to mold could only cause illness through three mechanisms: 1) direct toxicity through inhalation or ingestion; 2) infection; and 3) hay fever type allergies, like cough and runny nose. But information that has come out since then shows non-innate immune reactions occur, and that is what CIRS is. Exposure to mold leads to multisystem illness, including general fatigue, musculoskeletal problems, cognitive decline, dermatologic problems, immune system problems, respiratory problems, neurology problems and gastrointestinal problems. This is what Employee has. Employee was born with a genetic predisposition for CIRS, and when he started the job, Dr. McMahon thinks Employee had a “fairly massive” mold exposure. “Once you cross that line where your MSH is low, however, it may never come back.” Employee has lost somewhere between 10 to 30 percent of his energy and cognitive ability for the rest of his life. He will also require some sort of treatment for the rest of his life. Subsequent mold exposure will cause Employee to “relapse.” Dr. McMahon was critical of the methodology of a 2002 article by the American College of Occupational and Environmental Medicine, which once was their “position statement,” but it no longer is since they removed it from their website in 2014. American Academy of Allergy, Asthma and Immunology (AAAAI) also published a similar statement that was almost a reiteration of the 2002 article, but they removed it from their website in 2011. People will cite these articles as being authoritative, but they are not. These are positions that “everyone has turned their backs on because they are not consistent with the epidemiologic arguments that are out there.” Later, Dr. McMahon acknowledged the AAAAI article still does appear on in the Archives section of their website and that it had been placed in the archives section due to the passage of time. He then stated the article had been “disavowed by time.” Dr. McMahon could not name the article, written by Dr. Shoemaker that found people can be susceptible to mold based on their HLA. None of Dr. McMahon’s research has been funded by the National Institute for Health. The World Health Organization does not refer to Dr. Shoemaker’s differential diagnosis and treatment protocols. Dr. McMahon was repeatedly unable to cite a scientific article that found Employee’s HLA makes him susceptible to mold. He then testified one does not have to have an HLA predisposition to have CIRS; it is not a definitive test. HLA is a very specific test that can help you rule in or rule out CIRS. Dr. Shoemaker owns his website and part of one of the testing companies. Dr. McMahon thinks Dr. Shoemaker’s articles should have disclosure statements for his commercial interest in mold related products. Dr. McMahon does not accept

LabCorps MMP-9, MSH and ADH reference ranges. He relies on his own unpublished data instead. As a physician, whether the FDA “approves a testing device [for diagnosis] or not is irrelevant” to Dr. McMahon. Dr. Shoemaker retired in January 2013 after a “near death episode” that required hospitalization in December 2012. The Maryland Board of Physicians reprimanded Dr. Shoemaker in a consent order because he required new patients to make a \$100 donation to his non-profit that funds his research and provides “scholarships” to patients who cannot afford his initial evaluation. Dr. McMahon has read the consent order “on several occasions,” and it only prohibited Dr. Shoemaker from ordering EKGs and other tests unless there is a medically necessary reason. “That’s the only thing in his probation.” Dr. McMahon later denied he stated the basis of Dr. Shoemaker’s reprimand was because he required patients to make a \$100 donation. (McMahon).

74) Dr. McMahon is not credible and his opinions are given no weight for the reasons stated in this decision’s analysis. (Experience, judgement).

75) At hearing, Dr. Burton testified, since 1997, his practice exclusively involves evaluating patients with occupational exposure to toxic substances. Mold itself is not toxic, but excretes substances that can be toxic. The dose-response relationship is important. Dr. Burton concluded none of Employee’s symptoms were consistent with the adverse effects of mold exposure. He first considered sleep apnea because nonspecific symptoms such as lethargy and fatigue, are common with sleep apnea. Employee’s sleep study showed 76 percent oxygen saturation, which is consistent with sleep apnea. Dr. Burton called this a “very significant number.” Symptoms, such as feeling sleepy, lethargy, brain fog, just not feeling right, are nonspecific complaints that don’t support a diagnosis other than obstructive sleep apnea. Headache is very common because of oxygen desaturation, not unlike with mountain climbers. It is not uncommon to hear complaints of nausea and body aches not specific to any injury or condition. CIRS is a “diagnostic label” for which there are no diagnostic criteria. It is not a legitimate medical diagnosis. It’s a term frequently used by naturopathic physicians. Dr. Burton searched the medical literature and CIRS is not an accepted diagnosis in the medical community. There are three major exposure types involving mold: allergic, infection and toxicity, which has become “popularized.” Historically, moldy rye, if consumed, can cause a toxic syndrome. However, the idea of toxicity from a moldy home or workplace does not really exist because one could not inhale mold in sufficient concentrations to have a toxic event. Outdoor mold concentrations of mold are even higher than

indoor. If a medical issue is published in a journal, it is in PubMed. PubMed is the “library of medicine.” The PubMed medical literature does not support CIRS as a condition. Dr. Shoemaker’s articles are not in PubMed because they were not published in peer reviewed journals. Genetic testing for mold sensitivity is an untested hypothesis that has not been confirmed. Standard, commonly done, well established laboratory tests generate more reliable reference standards that can define the difference between normal and abnormal; and whether the abnormal value is an indicator of a disease. Dr. McMahon’s biomarker tests are not utilized a great deal so the reference ranges are more indeterminate, and there is going to be a lot of overlap between normal and abnormal, even if the test method is good. The fundamental problem with Dr. Shoemaker’s approach is he is trying to diagnose from symptoms rather than objective findings. Dr. Shoemaker operates off the presumption there was mold exposure that leads to all the testing and conclusions he makes. Dr. Shoemaker’s definition of mold exposure is indefinable. Without being able to define what an exposure is, “it’s basically a waste of time and resources to try to go through the various hypothesis he is trying to generate.” For a medical toxicologist, “It’s the dose that makes the poison,” so you have to know what the substance was, the mechanism of exposure and the intensity and duration of the exposure before you can come up with any conclusion about a cause and effect analysis. Employee’s photographs look like there may have been mold in the camp, and are only evidence of a visual exposure to mold. An old building may also smell like mildew or mold, but it takes a very low concentration to create the odor. Symptoms of toxicity can be ruled out immediately because there could not have possibly been sufficient concentrations of airborne mold to result in toxicity. Employee was not in the building long enough to have developed an infection, and neither did he relate any symptoms of an infection. Employee would have to have an underlying allergy disorder, like a history of hay fever or a history of asthma, which would involve sneezing, itchy eyes, scratchy throat, but those symptoms would happen immediately upon exposure, or within a very short time. Employee’s history did not indicate he had an underlying allergy disorder. For toxicity to result from mold, it would have to be ingested, not inhaled. “You could not possibly inhale enough, just based on the bulk.” Calculations have been done that show the air particulates containing mycotoxins would have to be so thick you couldn’t see through it. There are no verified cases of mold toxicity simply from breathing indoor air, even in a moldy environment. The MRI that showed a thickening of paranasal sinuses is a finding that would suggest sinusitis. Persons with sleep apnea might experience confusion and is

one of the more likely causes of Employee forgetting where he is at. Mold exposure would not cause the need for manual lymph drainage. “That just does not make any sense.” Upon being asked about Employee testing MARCoNS positive, Dr. Burton stated, “Nasal passages always have bacteria; that is not unusual.” A typical nasal culture would not have an explanation for “MARCoNs.” The explanation arises from Dr. Shoemaker and is not something you would find documented in the medical literature. Then explanation is just Dr. Shoemaker’s interpretation of the test. Drs. Shoemaker and McMahon order a variety of uncommon lab tests and then form a conclusion that these uncommon tests document an exposure to mold. These tests have no relevance in the evaluation and diagnosis of mold-related disease. (Burton).

76) Dr. Burton is credible on account of his over 20 years’ experience exclusively evaluating patients with occupational exposure to toxic substances, because he discussed mold in greater depth than any other physician in the record and for his insightful explanation of the reliability of reference ranges for laboratory results. (Experience, judgment).

77) At hearing, Employee testified he arrived at Ptarmigan Camp with a supervisor and a four-person crew. They gathered laundry from every room in the camp, and as the building heated, mold colonies grew and he had to scrap them off with a putty knife. “There was mold all over the camp.” Mold was in closets and on the floor, and on the bottoms of tables and chairs. He got headaches, then experienced fatigue, foggy mind and body pain. He had never had headaches before. The next year and a half was very difficult because he had no way of getting medical treatment on account of Employer’s controversion. Then, he got Medicaid assistance, but he could only see certain doctors and wasn’t getting any better. When he was taking a sinus medication for a third time, his headaches got better and his fatigue and muscle pain improved, as well. Now, he suffers from mood swings and irritability, stress, depression and anxiety. He still has concentration and memory issues, and swollen glands, “although they’re down quite a bit.” (Employee).

78) Employee is credible because of the conviction with which he testified and because many details of his testimony can be found in the written record. (Experience, judgment).

79) Employee’s anger and temperamental outbursts are well known to Workers’ Compensation Division staff. (Experience).

80) At the hearing’s conclusion, Employer’s attorney commended Ms. Rife for her representation in her father’s case. (Record). The panel also found Ms. Rife’s non-attorney

representation to have been extremely professional and worthy of commendation. (Experience; judgment; observations; unique or particular facts of the case; and inferences drawn therefrom).

81) Dr. Shoemaker has been subjected to professional discipline. On February 22, 2016, the Maryland State Board of Physicians notified Dr. Shoemaker it had received a complaint regarding his medical practice and, although the complaint was closed, advised him, “the Board has mandated protocols for alternative medicine practitioners to ensure prospective patients are fully informed of the nature of your practice regarding alternative medical diagnosis and treatments.” On August 26, 2009, the Board notified Dr. Shoemaker it had received another complaint that alleged he was treating and prescribing for Lyme disease over the internet. The Board closed the case but “strongly advised” Dr. Shoemaker to comply with the Board’s mandated protocols for alternative medical practitioners to ensure prospective patients are fully informed of the nature of your practice regarding alternative medical diagnosis and treatments. On April 16, 2010, the Maryland State Board of Physicians received a complaint from an individual who was not a patient of Dr. Shoemaker, alleging Dr. Shoemaker was soliciting prospective patients on a website that encourages the viewer to take an online diagnostic test. The complainant took the test, which included very broad symptom responses, and provided positive responses to a few of the items. Based on these responses, the website suggested that the complainant may be suffering from a biotoxin illness and further suggested that the complainant visit Dr. Shoemaker’s office. The complainant further alleged that Dr. Shoemaker cited “his own non-profit [organization] research to convince people to visit his private practice and purchase unnecessary tests.” On June 2, 2010, the Board received another complaint from a former patient of Dr. Shoemaker’s regarding his practice. As a result of these latter two complaints, the Board subpoenaed Dr. Shoemaker’s patient records and directed him to provide a summary of his care for each patient. The patient records, and Dr. Shoemaker’s responses, were then referred to a peer review entity to review Dr. Shoemaker’s practice. This review resulted in a consent decree where the following facts were established:

[Dr. Shoemaker’s] Practice

[Dr. Shoemaker’s] patients are generally self-selected; that is, they have identified themselves as suffering from health problems as a consequence of having been exposed to mold and have sought treatment from [Dr. Shoemaker] after reading his website or other literature.

[Dr. Shoemaker] has developed a treatment protocol for a diagnosis *he calls* Chronic Inflammatory Response Syndrome. The protocol includes the administration of cholestyramine as an initial step if removal of the suspected environmental trigger is not possible or effective. . . .

[Dr. Shoemaker] enrolled several of the patients whose care was reviewed in an experimental protocol under the auspices of a *legitimate* Institutional Review Board. . . .

Summary of Peer Review

The peer reviewers noted the following deficiencies *in all of the cases* they reviewed:

Off-label use of potentially toxic drugs The drugs prescribed by [Dr. Shoemaker] are potentially toxic when used for inappropriate purposes

[Dr. Shoemaker's] documentation is not consistently legible;

[Dr. Shoemaker] used diagnostic codes for conditions not evident in the patient's record to justify the laboratory studies. [Dr. Shoemaker] justified many of the laboratory tests he ordered for each patient using the diagnostic code for "toxic encephalopathy," yet other than the patients' complaint of not thinking clearly, there is *no evidence* that the patients displayed *any clinical signs* of encephalopathy. Similarly, for *all the patients* whose care was reviewed, [Dr. Shoemaker] noted the IDC code for bronchitis (466.0) to justify spirometry; however, there was *no evidence* in the patients' record of bronchitis. [Dr. Shoemaker] noted that IDC code for premature heart beats (427.61) to justify EKGs for each patient, however, there is *no evidence* of premature beats in the records;

[Dr. Shoemaker] failed to document his treatment rationale for starting, adjusting or changing medications and dosages;

[Dr. Shoemaker] failed to document complete problem lists and medication lists.

In addition to the above deficiencies, [Dr. Shoemaker] prescribed Procrit (erythropoietin), a glycoprotein that stimulates red blood production, to a patient in a manner that was *potentially dangerous to the patient*. . . .

The Board concluded, as a matter of law, Dr. Shoemaker failed to meet the quality care standard, reprimanded him; and, because Dr. Shoemaker's medical practice was already closed, placed him on probation for a minimum of two years should he resume practicing medicine, in which case Dr.

Shoemaker would be required to practice under the supervision of a Board-approved practice monitor. (*In the Matter of Ritchie Shoemaker, M.D.*, Maryland State Board of Physicians Consent Decree (March 21, 2013)) (emphasis added).

PRINCIPLES OF LAW

The board may base its decisions not only on direct testimony and other tangible evidence, but also on the board’s “experience, judgment, observations, unique or peculiar facts of the case, and inferences drawn from all of the above.” *Fairbanks North Star Borough v. Rogers & Babler*, 747 P.2d 528, 533-34 (Alaska 1987).

AS 23.30.010. Coverage. (a) . . . [C]ompensation or benefits are payable under this chapter . . . if the disability . . . or the employee’s need for medical treatment arose out of and in the course of the employment. To establish a presumption under AS 23.30.120(a)(1) that the disability . . . or the need for medical treatment arose out of and in the course of the employment, the employee must establish a causal link between the employment and the disability . . . or the need for medical treatment. A presumption may be rebutted by a demonstration of substantial evidence that the . . . disability or the need for medical treatment did not arise out of and in the course of the employment. . . .

For injuries occurring on or after November 7, 2005, the relative contribution of all causes of disability and need for medical treatment must be evaluated, and if employment is, in relation to all other causes, “the substantial cause” of the disability or need for medical treatment, benefits are awardable. *City of Seward v. Hanson*, AWCAC Decision No. 146 at 10 (January 21, 2011).

AS 23.30.120. Presumptions. (a) In a proceeding for the enforcement of a claim for compensation under this chapter it is presumed, in the absence of substantial evidence to the contrary, that

(1) the claim comes within the provisions of this chapter

“The text of AS 23.30.120(a)(1) indicates that the presumption of compensability is applicable to *any* claim for compensation under the workers’ compensation statute.” *Meek v. Unocal Corp.*, 914 P.2d 1276, 1279 (Alaska 1996) (emphasis in original). Medical benefits, including continuing care, are covered by the AS 23.30.120(a) presumption of compensability. *Municipality of Anchorage v. Carter*, 818 P.2d 661, 664-65 (Alaska 1991). The Alaska Supreme Court in *Sokolowski v. Best*

DAVID RIFE v. ARCTIC CATERING AES ALASKA, L.L.C.

Western Golden Lion, 813 P.2d 286, 292 (Alaska 1991) held a claimant “is entitled to the presumption of compensability as to each evidentiary question.”

The presumption’s application involves a three-step analysis. *Louisiana Pacific Corp. v. Koons*, 816 P.2d 1379, 1381 (Alaska 1991). First, an employee must establish a “preliminary link” between the “claim” and his employment. In less complex cases, lay evidence may be sufficiently probative to make the link. *VECO, Inc. v. Wolfer*, 693 P.2d 865, 871 (Alaska 1985). Whether or not medical evidence is required depends on the probative value of available lay evidence and the complexity of the medical facts involved. *Id.* An employee need only adduce “some,” minimal relevant evidence, *Cheeks v. Wismer & Becker/G.S. Atkinson, J.V.*, 742 P.2d 239, 244 (Alaska 1987), establishing a “preliminary link” between the “claim” and the employment, *Burgess Construction Co. v. Smallwood*, 623 P.2d 312, 316 (Alaska 1981). Witness credibility is not examined at this first step. *Excursion Inlet Packing Co. v. Ugale*, 92 P.3d 413, 417 (Alaska 2004).

Second, once an employee attaches the presumption, the employer must rebut it with “substantial” evidence that either, (1) provides an alternative explanation excluding work-related factors as a substantial cause of the disability (“affirmative-evidence”), or (2) directly eliminates any reasonable possibility that employment was a factor in causing the disability (“negative-evidence”). *Huit v. Ashwater Burns, Inc.*, 372 P.3d 904; 919 (Alaska 2016). “Substantial evidence” is the amount of relevant evidence a reasonable mind might accept as adequate to support a conclusion. *Miller v. ITT Arctic Services*, 577 P.2d 1044, 1046 (Alaska 1978). The mere possibility of another injury is not “substantial” evidence sufficient to rebut the presumption. *Huit* at 920, 921. The employer’s evidence is viewed in isolation, without regard to an employee’s evidence. *Miller* at 1055. Therefore, credibility questions and weight accorded the employer’s evidence are deferred until after it is decided if the employer produced a sufficient quantum of evidence to rebut the presumption. *Norcon, Inc. v. Alaska Workers’ Compensation Board*, 880 P.2d 1051, 1054 (Alaska 1994); citing *Big K Grocery v. Gibson*, 836 P.2d 941 (Alaska 1992).

For claims arising after November 7, 2005, employment must be the substantial cause of the disability or need for medical treatment. *Runstrom v. Alaska Native Medical Center*, AWCAC Decision No. 150 (March 25, 2011) (reversed on other grounds by *Huit*). If an employer produces substantial

evidence work is not the substantial cause, the presumption drops out and the employee must prove all elements of the “claim” by a preponderance of the evidence. *Louisiana Pacific Corp. v. Koons*, 816 P.2d 1381 (citing *Miller v. ITT Services*, 577 P.2d. 1044, 1046). The party with the burden of proving asserted facts by a preponderance of the evidence must “induce a belief” in the fact-finders’ minds the asserted facts are probably true. *Saxton v. Harris*, 395 P.2d 71, 72 (Alaska 1964).

AS 23.30.122. Credibility of witnesses. The board has the sole power to determine the credibility of a witness. A finding by the board concerning the weight to be accorded a witness’s testimony, including medical testimony and reports, is conclusive even if the evidence is conflicting or susceptible to contrary conclusions. The findings of the board are subject to the same standard of review as a jury’s finding in a civil action.

The board’s credibility findings and weight accorded evidence are “binding for any review of the Board’s factual finding.” *Smith v. CSK Auto, Inc.*, 204 P.3d 1001; 1008 (Alaska 2009).

AS 23.30.135. Procedure before the board. (a) In making an investigation or inquiry or conducting a hearing the board is not bound by common law or statutory rules of evidence or by technical or formal rules of procedure, except as provided by this chapter. The board may make its investigation or inquiry or conduct its hearing in the manner by which it may best ascertain the rights of the parties. . . .

The board has broad statutory authority in conducting its investigations and hearings. *Tolson v. City of Petersburg*, AWCB Decision No. 08-0149 (August 22, 2008); *De Rosario v. Chenega Lodging*, AWCB Decision No. 10-0123 (July 16, 2010). The statute gives panels “free rein in making its investigations and in conducting its hearings, and authorizes it to receive and consider . . . any kind of evidence that may throw light on a claim pending before it.” *Cook v. Alaska Workmen’s Compensation Board*, 476 P.2d 29, 32 (Alaska 1970) (quoting with approval *Carroll v. Knickerbocker Ice Company*, 218 N.Y. 435, 113 N.E. 507 (1916)).

8 AAC 45.120. Evidence.

. . . .

(e) Technical rules relating to evidence and witnesses do not apply in board proceedings, except as provided in this chapter. Any relevant evidence is admissible if it is the sort of evidence on which responsible persons are accustomed to rely in the conduct of serious affairs, regardless of the existence of any common

law or statutory rule which might make improper the admission of such evidence over objection in civil actions. . . .

In *Daubert v. Merrell Dow Pharms., Inc.*, 509 U.S. 579, 113 S.Ct. 2786 (1993), the United States Supreme Court articulated a new standard to determine whether expert testimony involving scientific, technical or other specialized knowledge meets standards for relevance and reliability under the Rules of Federal Evidence. The Alaska Supreme Court adopted *Daubert* for the Alaska Evidence Rules in *State v. Coon*, 974 P.2d 386 (abandoned by *State v. Sharpe*, 435 P.3d 887 (Alaska 2019) on another issue). Under the *Daubert* standard, in assessing reliability and relevance of proffered scientific evidence, a fact finder may consider (1) whether the proffered scientific theory or technique can be and has been empirically tested, (2) whether the theory or technique has been subject to peer review and publication, (3) whether the known or potential error rate of the theory or technique is acceptable, and (4) whether the theory or technique has attained general acceptance, with other factors potentially applicable in a given case. *Id.*

ANALYSIS

Are Employee's claims compensable?

Whether Employee's claims are compensable raises a factual dispute to which the statutory presumption of compensability applies. *Meek*. Employee attaches the presumption with Dr. Smith's May 1, 2018, and Dr. McMahon's December 18, 2018, opinions that Employee developed CIRS as a result of being exposed to toxic mold at work. *Cheeks*. Employer rebuts the presumption with Drs. Burton's, Holmes' and Raybin's opinions that Employee suffered from severe obstructive sleep apnea, a condition not related to his employment. *Miller*. Employee must now prove, by a preponderance of the evidence, that an occupational exposure to mold was the substantial cause of his disability or need for medical treatment. *Koons*.

Both parties acknowledge Employee presents a medically complex case, and because there are two extraordinarily insightful documents in the lengthy medical record, this analysis will begin with those documents. *Rogers & Babler*. Dr. Burton, an occupational toxicologist, performed an EME on May 10, 2018, and diagnosed Employee with probable obstructive sleep apnea, which he thought explained Employee's symptom complaints. Dr. Burton offered Employee additional

diagnostic testing to better understand his medical condition, but Employee refused Dr. Burton's offer. A year later, Dr. Burton's opinion proved remarkably prescient when Employee underwent a sleep study that confirmed Dr. Burton's diagnosis. Not only was Dr. Burton's opinion ultimately validated, but he was unusually confident at the time he made it, writing, "It should have been apparent that [Employee's] complaints of morning headache, fatigue, cognitive complaints, depression and irritability are inconsistent with mold exposure, but instead, most likely arose as a result of obstructive sleep apnea, particularly in a setting of [Employee's] substantial obesity and thick neck." *Rogers & Babler*. Dr. Burton also found it "unfortunate" that Employee's medical providers "uncritically" accepted Employee's self-diagnosis and did not "engage in an appropriate or meaningful medical evaluation to include the creation of a differential diagnosis, rather than attempting to support [Employee's] belief system." Over a year later, Dr. Holmes, also an occupational toxicologist, evaluated Employee for an SIME, and recorded a patient history that once again proved Dr. Burton's opinions to have been particularly astute.

During his SIME evaluation, Dr. Holmes spent nearly two hours obtaining a history of Employee's present illness. It is lengthy, detailed and quoted in this decision's factual findings. Dr. Holmes' history adds context to many documents in the medical record, fills in gaps as to why certain lab tests were performed, and explains the many unusual aspects of this case. As it emerges, Dr. Holmes' history paints a picture of a patient who effectively self-diagnosed, self-prescribed, self-referred and ordered his own lab tests, all in a vain effort to confirm a diagnosis he found on the internet, while he continued to suffer from a debilitating medical condition that could have been easily diagnosed and treated at least a year, if not two years, earlier than it was. Instead, Employee repeatedly and steadfastly refused to undergo a sleep study after one had been recommended because, as he candidly acknowledged to one his medical providers, it would hurt his workers' compensation case. Dr. Holmes' history of Employee's illness validates Dr. Burton's opinions with respect to Employee's health care providers. Because of Dr. Burton's keen diagnostic skills, and Dr. Holmes' detailed and revealing patient history, their opinions are accorded great weight. AS 23.30.122.

Employee's case bares an eerie resemblance to the patients identified in Dr. Shoemaker's professional disciplinary consent order, who are described as being "self-selected; that is, they

have identified themselves as suffering from health problems as a consequence of having been exposed to mold and have sought treatment from [Dr. Shoemaker] after reading his website or other literature.” A review of the medical record shows many of Employee’s medical providers accepted and repeated his self-diagnosis, even while they were openly questioning it in their own chart notes, or even when it was inconsistent with their own clinical findings. *Rogers & Babler*. Additionally, they were performing diagnostic studies, ordering lab tests and, in the cases of two of his doctors, even prescribing medication based on recommendations Employee found on SurvivingMold.com. *Id.* The pervasiveness of these occurrences among Employee’s numerous medical providers is both glaring and alarming. *Id.* Because Employee’s numerous medical providers, including Drs. York, DeMers, Pullman and Boston, failed to exercise their own independent, professional judgment, just as Dr. Burton alleged in his May 10, 2018, EME report, their purported diagnoses of “mold exposure,” “significant fungal exposure,” and “suspected exposure to toxic mold,” are accorded no weight. AS 23.30.122.

Dr. Raybin, who specializes in occupational lung diseases, also performed an SIME. He, too, opined obstructive sleep apnea was the substantial cause of Employee’s disability or need for medical treatment, albeit following Employee’s sleep study. His report is notable for its scholarly approach to evaluating Dr. Shoemaker’s theory of mold related illnesses, which not only included summaries of the scientific articles he identified from his research, but also its inclusion of quoted passages from those articles. *Rogers & Babler*. Dr. Raybin also reviewed and set forth a lengthy critique of Dr. Shoemaker’s article, *Structural brain abnormalities in patients with inflammatory illness acquired following exposure to water damaged buildings: a volumetric MRI study using NeuroQuant*, which was most helpful in understanding issues of scientific method with Dr. Shoemaker’s NueroQuant study. *Id.* For each of these reasons, Dr. Raybin’s opinions are accorded substantial weight. AS 23.30.122.

Employee’s primary evidence lies in the opinions of two “Shoemaker Protocol” certified medical providers, Dr. Smith, a naturopath; and Dr. McMahon, a pediatrician. To evaluate their opinions, a discussion of the scientific evidence underlying Dr. Shoemaker’s theory of CIRS is necessary. Employer contends Dr. Shoemaker’s opinions are not sufficiently grounded on scientifically valid principles and methods under *Daubert*, so they should not be considered here. The standard

articulated in *Daubert* was to assure scientific or technical testimony met the standards of relevance and reliability under the Federal Rules of Evidence, and although the Alaska Supreme Court adopted *Daubert* in *Coon*, workers' compensation proceedings are not bound by statutory rules of evidence. AS 23.30.135(a). Instead, a panel may consider "any kind of evidence that may throw light on a claim pending before it." *Cook*. Nevertheless, this is not to say all evidence must be considered. Evidence must still be relevant and of the sort that "responsible persons are accustomed to rely in the conduct of serious affairs." 8 AAC 45.120(e). To determine relevance and reliability of scientific evidence, applying the *Daubert* standard criteria is appropriate especially when, as in this case, the disability and need for medical treatment's cause is not typical. *Rogers & Babler*. Both Drs. Smith and McMahon base their CIRS diagnoses on Employee's NeuroQuant reports, MARCoNS results, and biomarker and genetic testing. The record in this case shows their reliance on these criteria, as well as the diagnosis of CIRS itself, require further evaluation.

Drs. Darby, Burton, Raybin and Holmes were all critical of Dr. Shoemaker's NeuroQuant study. Dr. Raybin's extensive criticism of the study included his concerns over selection bias, the small number of patients and controls, NeuroQuant's lack of control data for the caudate nucleus, and the lack of confirmatory reports in PubMed, which Dr. Burton described as "the library of medicine." Dr. Raybin also pointed out, to the extent the study is valid; it only shows some patients with neuropsychiatric symptoms may have lower volumes of gray matter in the caudate nucleus. Dr. Darby similarly opined other conditions, such as obsessive compulsive disorder, have been associated with caudate volume loss. Dr. Holmes testified using an MRI is "absolutely not" the way to diagnose mold exposure and doing so is "nearly irresponsible." Dr. Burton bluntly called Dr. Shoemaker's NeuroQuant theory "junk science" since he could not find any evidence, beyond Dr. Shoemaker's own article, in the scientific literature to support it.

Dr. Burton credibly testified "MARCoNS" is a term used by Dr. Shoemaker and is not found in the medical literature. He explained, nasal passages always have bacteria and typical nasal culture would not have an explanation for MARCoNS. This explanation raises an additional concern since Employee's MARCoNS test was performed at Microbiology Dx, a lab in which Dr. Shoemaker has a commercial interest. *Rogers & Babler*. Similar to Dr. Burton, Dr. Raybin explained, MARCoNS

are bacteria, not a fungus, and the finding of MARCoNS in Employee is not evidence of a fungal infection, but rather evidence Employee's nasal passages are simply colonized by bacteria.

As Dr. Burton convincingly and credibly testified, the fundamental problem with Dr. Shoemaker's approach is he is trying to diagnose from symptoms alone rather than objective findings. He operates off the presumption there was mold exposure; then, he and Dr. McMahon will order a variety of uncommon lab tests and they will form a conclusion that the results from these tests document an exposure to mold. Dr. Burton explained lab tests that are commonly performed generate reference standards that are more reliable and can define the difference between normal and abnormal, and whether the abnormal value is an indicator of a disease. However, since Dr. McMahon's biomarker tests are not often utilized, their reference ranges are more indeterminate and there is going to be a lot of overlap between normal and abnormal results, even with a valid testing method.

The veracity and reliability of Dr. Burton's opinions on biomarker testing can be found in the lab reports themselves, which include cautionary instructions such as: "The results of this test are for research purposes only per the assay manufacturer. The performance characteristics of this assay have not been established. The result should not be used as a diagnostic procedure without confirmation of the diagnosis by another medically established diagnostic product or procedure." Other results contain cautionary instructions, such as: "This test was performed using a kit that has not been cleared or approved by the FDA. . . . This test should not be used for diagnosis without confirmation by other medically established means."

Despite advisory warnings, Dr. Smith's May 1, 2018 letter, and Dr. McMahon's hearing testimony, make clear, they are using biomarker testing as a basis for their CIRS diagnoses. Moreover, to the extent reference ranges have been established for these tests, both Drs. Smith and McMahon reject them. Dr. Smith claimed Employee had six abnormal lab tests when, in fact, a plain reading of the lab results shows there was only one. Dr. McMahon also claimed Employee had six abnormal lab tests. He, too, clearly misreads the lab results. Dr. McMahon had an explanation for this when he candidly testified he does not accept published reference ranges for the biomarker tests, preferring instead to rely on his own unpublished data. Dr. McMahon also surprisingly testified, as a physician, whether the FDA "approves a testing device [for diagnosis] or not is irrelevant" to him.

Meanwhile, Dr. Holmes, a toxicologist, testified C4a and VGEF biomarkers tests are not “clinically useful” for diagnosing mold illness, and Dr. Raybin, an expert in occupational lung diseases, testified he is not aware of any association between MMP-9 and mold. Dr. McMahon’s cavalier approach and opinion regarding biomarker testing is not credible and is given no weight. As a pediatrician, with no specialized or reputable training in toxicology or lung diseases, his opinions are not reliable. AS 23.30.122; *Coon*.

Dr. McMahon’s other hearing testimony was a fiasco, as well. *Rogers & Babler*. He began his testimony by confidently stating there are three different methods by which CIRS can be diagnosed, and Employee met all three criteria - only Dr. McMahon did not identify what those criteria were. *Id.* Nevertheless, Dr. McMahon, referring to Employee, “came away with that saying, ‘You have Chronic Inflammatory Response Syndrome.’” He then contended Employee’s HLA testing shows he has a genetic predisposition for CIRS because Employee has haplotypes 4353 and 12352b, and “[b]oth of those are considered amongst the worst haplotypes that you can have.” Yet, during repeated questioning, Dr. McMahon could not identify a scientific article written by Dr. Shoemaker, or anyone else, that found people can be susceptible to mold based on their HLA, or why Employee’s haplotypes were the worst one could have. Dr. McMahon then changed course and testified one does not have to have a genetic predisposition to have CIRS, then he immediately circled back to his original position and testified that HLA is a very specific test that can help rule-in or rule-out mold exposure. Meanwhile, Dr. Burton credibly testified genetic testing for mold sensitivity is an untested hypothesis that has not yet been confirmed. AS 23.30.122; *Coon*.

Dr. McMahon further testified the AAAAI’s position statement on mold exposure was removed from its website in in 2011, and although people cite this article as being authoritative, it is not because it was a position “everyone has turned their backs on because [it] is not consistent with the epidemiological arguments out there.” Later he was forced to admit the position statement was still available on the website, albeit in the archives section, and then stubbornly contended it had been “disavowed by [the passage of] time.” Finally, Dr. McMahon grossly misrepresented the basis for Dr. Shoemaker’s professional discipline, then denied he had represented a basis for it at all. Dr. McMahon is manifestly not credible. AS 23.30.122.

Dr. Burton pointed out that CIRS is not included in the ICD9, and Dr. Raybin noted it is not found in the ICD10, either. After searching the medical literature, Drs. Raybin, Holmes and Burton all concluded that CIRS is not a commonly accepted diagnosis in the medical community. Additionally, the weighty opinions of Drs. Burton, Holmes and Raybin conclude NeuroQuant reports, MARCoNS results, and biomarker and genetic testing are not the type of diagnostic criteria that can be relied upon to diagnose a mold related illness, 8 AAC 45.120(e), and since Drs. Smith and McMahon rely on them to form their diagnoses, their opinions are accorded no weight, AS 23.30.122. At this point, Employee has failed to adduce any reliable evidence that his disability or need for medical treatment was substantially caused by his employment at Ptarmigan Camp. He has failed to meet his burden and his claims will not be found compensable. *Koons*.

Employee contends his severe obstructive sleep apnea diagnosis does not explain all the symptoms of which he has complained since his work at Ptarmigan Camp. The medical record shows Employee's symptom complaints, since his alleged mold exposure at Ptarmigan Camp, through the SIMEs, consistently included headache, fatigue and neurocognitive difficulties that Employee commonly described as "brain fog" and trouble remembering recipes. He did, at various times, have other symptom complaints, but as Dr. Holmes credibly explained, people who are 58 years old may experience symptoms from a variety of issues and it is a fallacy to attribute every symptom that arose after the mold exposure to the mold exposure. AS 23.30.122; *Rogers & Babler*. Significantly, Employee's other symptom complaints were all either transitory, or disproved through diagnostic testing, such as was the case with his complaints of swollen lymph nodes. As discussed above, Dr. Burton thought his diagnosis of probable sleep apnea "should have been apparent" to Employee's other medical providers, and he later characterized Employee symptoms as "classic" for sleep apnea. Even one of Employee's many medical providers, Dr. Boston, questioned his previous diagnoses and course of treatment after reading Dr. Burton's report and repeatedly recommended Employee undergo a sleep study, a recommendation Employee repeatedly refused. However, most telling, by the time of Dr. Holmes' SIME on July 12, 2019, Employee reported his "body feels pretty good"; he was having "rare headaches," and even the "Lymph' swelling in his neck [was] all gone." The lengthy medical record in this case demonstrates the substantial cause of Employee's disability and his need for medical treatment

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was severe obstructive sleep apnea, and not CIRS, or any other mold related illness. AS 23.30.010(a); AS 23.30.120(a).

CONCLUSION OF LAW

Employee's January 24, 2018; May 11, 2018; and December 26, 2018 claims are not compensable.

ORDER

Employee's January 24, 2018; May 11, 2018; and December 26, 2018 claims are denied.

Dated in Fairbanks, Alaska on June 5, 2020.

ALASKA WORKERS' COMPENSATION BOARD

/s/ Robert Vollmer
Robert Vollmer, Designated Chair

/s/ Julie Duquette
Julie Duquette, Member

/s/ Jacob Howdeshell
Jacob Howdeshell, Member

APPEAL PROCEDURES

This compensation order is a final decision. It becomes effective when filed in the office of the board unless proceedings to appeal it are instituted. Effective November 7, 2005 proceedings to appeal must be instituted in the Alaska Workers' Compensation Appeals Commission within 30 days of the filing of this decision and be brought by a party in interest against the boards and all other parties to the proceedings before the board. If a request for reconsideration of this final decision is timely filed with the board, any proceedings to appeal must be instituted within 30 days after the reconsideration decision is mailed to the parties or within 30 days after the date the reconsideration request is considered denied due to the absence of any action on the reconsideration request, whichever is earlier. AS 23.30.127.

An appeal may be initiated by filing with the office of the Appeals Commission: 1) a signed notice of appeal specifying the board order appealed from and 2) a statement of the grounds upon which the appeal is taken. A cross-appeal may be initiated by filing with the office of the Appeals Commission a signed notice of cross-appeal within 30 days after the board decision is filed or within 15 days after service of a notice of appeal, whichever is later. The notice of cross-appeal shall specify the board order appealed from and the ground upon which the cross-appeal is taken. AS 23.30.128.

RECONSIDERATION

A party may ask the board to reconsider this decision by filing a petition for reconsideration under AS 44.62.540 and in accord with 8 AAC 45.050. The petition requesting reconsideration must be filed with the board within 15 days after delivery or mailing of this decision.

MODIFICATION

Within one year after the rejection of a claim, or within one year after the last payment of benefits under AS 23.30.180, 23.30.185, 23.30.190, 23.30.200, or 23.30.215, a party may ask the board to modify this decision under AS 23.30.130 by filing a petition in accord with 8 AAC 45.150 and 8 AAC 45.050.

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CERTIFICATION

I hereby certify the foregoing is a full, true and correct copy of the Final Decision and Order in the matter of DAVID RIFE, employee / claimant v. ARCTIC CATERING AES ALASKA, L.L.C., employer; ALASKA NATIONAL INSURANCE COMPANY, insurer / defendants; Case No. 201701764; dated and filed in the Alaska Workers' Compensation Board's office in Fairbanks, Alaska, and served on the parties by First-Class U.S. Mail, postage prepaid, on June 5, 2020.

/s/ Ronald C. Heselton

Ronald C. Heselton, Office Assistant II