Please note that the yellow highlighting made to this document was added by the petitioner, not the WTC Health Program.

A. Interested Party Information

A1. Do you represent an organization (are you submitting this petition on behalf of an organization)?
☐ Yes (Go to A2) ☒ No (Go to A3)

A2. Organization Information:

Name of organization

A3. Name of Individual Petitioner or Organization Representative:

[redacted] [redacted]
First name Last name

Position, if representative of organization

A4. Mailing Address:

[redacted]
Street

[redacted] [redacted] [redacted]
City State Zip code

A5. Telephone Number: [redacted]

A6. Email Address: [redacted]

B. Proposed WTC-Related Health Condition Information

B1. Health Condition Information:

Young on-set Parkinson Disease Parkisonia Syndrome
Name of health condition you wish to petition to add to the List of covered conditions

If the name of the condition is not known, please provide a description of the condition or the name of the diagnosis provided by a physician or other healthcare provider.

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C. Basis for Proposing that the Condition Be Added to the List of WTC-Related Health Conditions

C1. Describe the reasons the WTC Program Administrator should consider the addition of this health condition. Explain how the health condition you are proposing relates to the exposures that may have occurred from the September 11, 2001, terrorist attacks. Your explanation must include a medical basis for the relationship/association between the 9/11 exposure and the proposed health condition. The medical basis may be demonstrated by reference to a peer-reviewed, published, epidemiologic study about the health condition among 9/11 exposed populations or to clinical case reports of health conditions in WTC responders or survivors. First-hand accounts or anecdotal evidence may not be sufficient to establish medical basis. If you need more space, please attach additional pages to this form.

My name is [redacted]. I WAS diagnosed on [redacted] 2013 with Parkinsonism [redacted]. The results from A DAT Scan showed early stages of an A Typical Parkinsonia Syndrome, such as a multiple systems degeneration. I worked at Ground Zero, 60-70 hours a week for aproximately 3 years. I also worked at the morgue and the landfill. At Ground Zero a United States goverment Survey listed the following major elements that it discovered in samples in W.T.C dust, Silicon, Calcium, mangnesium, Sulfur, iron aluminum, manganese and phosphorus. Four of these are flagged as possible indicators for (thermate) Suifur, Potalsium, titanium and manganese.

Mahganese was apparently not uncommon in Steel at the time WTC Center was built Perhaps the accounts of manganese high levels found was the steel Support structures that were melted as well as batteries and ceramics.

I've been under the Care of [redacted], Neurologist and Movement disorder Specialist, at [redacted]. DR. [redacted] strongly believes that the exposure to high levels of the toxin manganese dust that I inhaled at Ground Zero was the Cause of my Parkinsons. DAT Scan showed my levels of exposure to be 7.0. DR. [redacted] believes that my exposure levels were much higher during 911. Manganese poisoning has been associated with Parkinsonism. One hypothesis proposes that Manganese causes Parkinsonism through direct toxicity to basil ganglia nuclei, which is the part of brain that is responsible for the production of dopamine. The brain is a very Sensitive Organ and the exposure to manganese is a direct Cause of Parkinsons. Your Careful Consideration to add this disease to the list of WTC Illnesses.

C. Basis for Proposing that the Condition Be Added to the List of WTC-Related Health Conditions

C1. Describe the reasons the WTC Program Administrator should consider the addition of this health condition. Explain how the health condition you are proposing relates to the exposures that may have occurred from the September 11, 2001, terrorist attacks. Your explanation must include a medical basis for the relationship/association between the 9/11 exposure and the proposed health condition. The medical basis may be demonstrated by reference to a peer-reviewed, published, epidemiologic study about the health condition among 9/11 exposed populations or to clinical case reports of health conditions in WTC responders or survivors. First-hand accounts or anecdotal evidence may not be sufficient to establish medical basis. If you need more space, please attach additional pages to this form.

The following are links that show the correlation between manganese exposure and how it affects the brain (basil ganglia nuclei) which is a direct cause of parkinsons.

References:

1: Guilarte TR, Gonzales KK. Manganese-Induced Parkinsonism Is Not Idiopathic Parkinson's Disease: Environmental and Genetic Evidence. Toxicol Sci. 2015 Aug;146(2):204-12. doi: 10.1093/toxsci/kfv099. PubMed PMID: 26220508.

2: Kwakye GF, Paoliello MM, Mukhopadhyay S, Bowman AB, Aschner M. Manganese-Induced Parkinsonism and Parkinson's Disease: Shared and Distinguishable Features. Int J Environ Res Public Health. 2015 Jul 6;12(7):7519-40. doi: 10.3390/ijerph120707519. Review. PubMed PMID: 26154659; PubMed Central PMCID: PMC4515672.

3: Searles Nielsen S, Checkoway H, Criswell SR, Farin FM, Stapleton PL, Sheppard L, Racette BA. Inducible nitric oxide synthase gene methylation and parkinsonism in manganese-exposed welders. Parkinsonism Relat Disord. 2015 Apr;21(4):355-60. doi: 10.1016/j.parkreldis.2015.01.007. Epub 2015 Jan 17. PubMed PMID: 25634431; PubMed Central PMCID: PMC4512640.

4: Harischandra DS, Jin H, Anantharam V, Kanthasamy A, Kanthasamy AG. α-Synuclein protects against manganese neurotoxic insult during the early stages of exposure in a dopaminergic cell model of Parkinson's disease. Toxicol Sci. 2015 Feb;143(2):454-68. doi: 10.1093/toxsci/kfu247. Epub 2014 Nov 21. PubMed PMID: 25416158; PubMed Central PMCID: PMC4306724.

5: Leyva-Illades D, Chen P, Zogzas CE, Hutchens S, Mercado JM, Swaim CD, Morrisett RA, Bowman AB, Aschner M, Mukhopadhyay S. SLC30A10 is a cell surface-localized manganese efflux transporter, and parkinsonism-causing mutations block its intracellular trafficking and efflux activity. J Neurosci. 2014 Oct 15;34(42):14079-95. doi: 10.1523/JNEUROSCI.2329-14.2014. PubMed PMID: 25319704; PubMed Central PMCID: PMC4198546.

6: Roth JA. Correlation between the biochemical pathways altered by mutated parkinson-related genes and chronic exposure to manganese. Neurotoxicology. 2014 Sep;44:314-25. doi: 10.1016/j.neuro.2014.08.006. Epub 2014 Aug 19. Review. PubMed PMID: 25149416.

7: Bouabid S, Delaville C, De Deurwaerdère P, Lakhdar-Ghazal N, Benazzouz A. Manganese-induced atypical parkinsonism is associated with altered Basal Ganglia activity and changes in tissue levels of monoamines in the rat. PLoS One. 2014 Jun 4;9(6):e98952. doi: 10.1371/journal.pone.0098952. eCollection 2014. PubMed PMID: 24896650; PubMed Central PMCID: PMC4045849.

8: Lucchini RG, Guazzetti S, Zoni S, Benedetti C, Fedrighi C, Peli M, Donna F, Bontempi E, Borgese L, Micheletti S, Ferri R, Marchetti S, Smith DR. Neurofunctional dopaminergic impairment in elderly after lifetime exposure to manganese. Neurotoxicology. 2014 Dec;45:309-17. doi: 10.1016/j.neuro.2014.05.006. Epub 2014 May 29. PubMed PMID: 24881811; PubMed Central PMCID: PMC4247810.

[redacted]

[redacted]

October 12, 2015

Re: [redacted]

To Whom It May Concern:

My patient [redacted] has parkinsonism, as documented by SPECT with DaTscan in [redacted] 2013 (Result: Uptake decreased bilateral striatum, worse on the right, more decreased in putamen than caudate) and FDG PET in [redacted] 2014 (Result: Consistent with the early stages of an atypical parkinsonian syndrome such as mutliple systems degeneration).

[redacted] has reported that he worked without protective equipment at Ground Zero, where manganese apparently was found. [redacted] manganese level in [redacted] 2013 was 2.0 [reference range: 0.0-2.0]; I believe this was the first time it was checked, and perhaps it was higher closer to the exposure. Manganese poisoning has been associated with parkinsonism, as discussed in numerous papers including those cited below. One hypothesis proposes that manganese causes parkinsonism through direct toxicity to basal ganglia nuclei.

Thank you in advance.

[redacted]

References:

1: Guilarte TR, Gonzales KK. Manganese-Induced Parkinsonism Is Not Idiopathic Parkinson's Disease: Environmental and Genetic Evidence. Toxicol Sci. 2015 Aug;146(2):204-12. doi: 10.1093/toxsci/kfv099. PubMed PMID: 26220508.

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3: Searles Nielsen S, Checkoway H, Criswell SR, Farin FM, Stapleton PL, Sheppard L, Racette BA. Inducible nitric oxide synthase gene methylation and parkinsonism in manganese-exposed welders. Parkinsonism Relat Disord. 2015 Apr;21(4):355-60. doi: 10.1016/j.parkreldis.2015.01.007. Epub 2015 Jan 17. PubMed PMID: 25634431; PubMed Central PMCID: PMC4512640.

4: Harischandra DS, Jin H, Anantharam V, Kanthasamy A, Kanthasamy AG. α-Synuclein protects against manganese neurotoxic insult during the early stages of exposure in a dopaminergic cell model of Parkinson's disease. Toxicol Sci. 2015 Feb;143(2):454-68. doi: 10.1093/toxsci/kfu247. Epub 2014 Nov 21. PubMed PMID: 25416158; PubMed Central PMCID: PMC4306724.

5: Leyva-Illades D, Chen P, Zogzas CE, Hutchens S, Mercado JM, Swaim CD, Morrisett RA, Bowman AB, Aschner M, Mukhopadhyay S. SLC30A10 is a cell surface-localized manganese efflux transporter, and parkinsonism-causing mutations block its intracellular trafficking and efflux activity. J Neurosci. 2014 Oct 15;34(42):14079-95. doi: 10.1523/JNEUROSCI.2329-14.2014. PubMed PMID: 25319704; PubMed Central PMCID: PMC4198546.

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8: Lucchini RG, Guazzetti S, Zoni S, Benedetti C, Fedrighi C, Peli M, Donna F, Bontempi E, Borgese L, Micheletti S, Ferri R, Marchetti S, Smith DR. Neurofunctional dopaminergic impairment in elderly after lifetime exposure to manganese. Neurotoxicology. 2014 Dec;45:309-17. doi: 10.1016/j.neuro.2014.05.006. Epub 2014 May 29. PubMed PMID: 24881811; PubMed Central PMCID: PMC4247810.