## **Exhibit F**

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6	LATASHA WINKFIELD
7	
8	SUPERIOR COURT OF CALIFORNIA
9	COUNTY OF ALAMEDA
9	
10	LATASHA WINKFIELD, an individual   Case No. PR13-707598
10	LATASHA WINKFIELD, an individual parent and guardian of Jahi McMath, a
11	minor DECLARATION OF CALIXTO
	MACHADO, M.D., PhD, IN SUPPORT OF
12	Plaintiff, PLAINTIFF'S WRIT OF ERROR CORAM
13	NOBIS AND REQUEST REVERSE
13	v. JUDICAL DETERMINATION OF BRAIN
14	DEATH OF JAHI MCMATH
1.5	n a a
15	CHILDREN'S HOSPITAL & RESEARCH
16	CENTER AT OAKLAND, Dr. David
	Durand M.D. and DOES 1 through 10,
17	inclusive
18	Defendants.
	Dolontanio.
19	
20	I, Calixto Machado, M.D., declare as follows:
21	1. I make this Declaration of my own Personal Knowledge in Support of Plaintiff's
22	request to have Jahi McMath declared non-brain dead. If called to testify, I could testify to the
23	following:
24	Fundament Vitages
25	2. Attached to this Declaration is a true and correct copy of my Curriculum Vitae as
26	Exhibit "A." It is incorporated herein, is made of my own personal knowledge and constitutes a
27	Business Record under the California Evidence Code. Exhibit B is a copy of my report which is
28	brief because of my travel back to Havana and the short window of time to fully examine and

 interpret the medical evidence. I stand behind my opinion but anticipate writing a longer, more comprehensive, report for this interesting and potentially groundbreaking case.

- 3. In 1976, I graduated from the University of Havana School of Medicine. I completed my Residency Program at the Institute of Neurology from 1977-1980. I then went on to complete my First Degree of Board Certification in Neurology at the Institute of Neurology in 1980. I followed my First Degree of Board Certification in Neurology with my Second Degree of Board Certification in Neurology at the Institute of Neurology in 1987. I also graduated as a PhD in 1992.
- 4. Currently, I am a Senior Professor and Researcher in Neurology and Clinical
  Neurophysiology at the Institute of Neurology and Neurosurgery. I am the President of the Cuban
  Commission for the Determination and Certification of Death, and President of the Cuban Society
  of Clinical Neurophysiology. I lead this Commission which wrote the Cuban Law for or the
  Determination and Certification of Brain Death. I am a Corresponding Fellow of the American
  Academy of Neurology since 1992.
  - 5. I have been published over two hundreds (200) times and have received numerous awards in my field. I was honored by the American Academy of Neurology Lawrence McHenry Award in 2005, because of my research "The first organ transplant from a brain-dead donor".
- 6. I was originally asked by Phil DeFina, PhD, of the International Brain Research
  Foundation (IBRF), to review EEG and MRI studies. The EEG studies were given to me
  anonymously, meaning that I did not know the patient's name or that the patient was Jahi
  McMath. Dr. Defina asked me to review the EEG of a brain injured patient, which I did, and then
  respond to the question of whether she was "brain dead."
- 7. I must affirm that I am a defender that brain death means death of the human being, and it is a

state with no hope of recovery. Moreover, I am a Corresponding Fellow of the American Academy of Neurology (AAN), and I consider that AAN Criteria for Brain Death Diagnosis represent one the most outstanding and reliable Guidelines in the world for confirming the diagnosis of brain death. The AAN Guidelines emphasized that "Brain death is a clinical diagnosis". Nonetheless, this report also emphasized that "A confirmatory test is needed for patients in whom specific components of clinical testing cannot be reliably evaluated" (Neurology 1995;45:1003-1011). I was unable to make a clinical examination of this case, because I don't have the US license medical license. This patient presented a brainstem lesion, probably due to a herniation syndrome that frequently occurs when edema after a post-anoxic encephalopathy (Cardio-respiratory arrest) incites conflict of intracranial space. This is a specific clinical condition when a confirmatory test is recommended.

- I only worked as a volunteer IBRF international expert consultant, examining confirmatory tests of the patient.
- 9. I was not involved in her initial evaluation, and I don't know any data from her clinical and ancillary tests assessment performed in January 2014. Hence, I cannot give any opinion about that first evaluation, because I only knew about the patient from the US press. I only recently was able to evaluate the confirmatory tests presented to me, and my expert opinion is only based on this newly data I could review.
- 10. I reviewed and confirmed that the EEG undertaken by Elena Labkovshp, PhD was performed in accordance with Minimum Technical Standards for EEG Recording in Suspected Brain Death (American Clinical Neurophysiology Society).
  - 11. It is my opinion as an expert in brain death that the EEG Record shows:
    - a. The neurophysiological data is not consistent with the classical EEG isoelectric pattern found in brain-dead cases.

- Although there were EKG artifacts in derivations, I can appreciate the presence of low voltage EEG true activity.
- c. Although the EEG records show the presence of some artifacts, due to patient head and body movements of electrodes, I can see the existence of EEG activity with a prevalence of diffuse Delta, with superimposed activity within the Alpha and low Beta ranges.
- d. Some intermittent Delta and Theta activity is present in a random pattern. The Technologist assured that the electrodes did not have any contact with the ventilator hoses, which might account for artifacts simulating EEG activity.
- e. In conclusion, the neurophysiological data derived from this assessment, confirms the preservation of true EEG bioelectrical activity in this case.
- 12. I processed, with my group in Cuba, the Heart Rate Variability Measurements to access the central autonomic nervous system.
- 13. I personally oversaw the undertaking of a MRI/MRA done at Rutgers University on September 30, 2014, using all conventional sequences (i.e., T1, T2 in different axis, MRA, Fractional Anisotrpy, etc.).
- 14. Attached as Exhibit "B" is a true and correct copy of my report prepared after my review of the diagnostic tests and, additionally, information regarding the onset of menarche in this teen age girl.
- 15. The MRI shows that the subject had suffered a serious brain injury. It is possible to observe ribbons at the level of the cortex, indicating preservation of neocortex. Had she been brain dead without cerebral blood flow since January of 2014, we would not expect to see the structure of the brain to be as it is now; it would have, most likely, liquefied. This brain did not liquefy, but has maintained tissue structure. This is in fact for me the most important finding in

this case to deny that she is brain-dead, because considering the concept of brain death (BD), that per definition an irreversible absence of cerebral blood flow (CBF) should be present, in this case, with more than 9 months of evolution with the possible diagnosis of BD, I would have expected to find the classic description of the "respirator brain" (brain liquefied, without any nervous system structure, etc.). Although recently Eelco Wijdicks et al. described that there is no specific anatomo-pathology findings in brain-dead cases, and that "respirator brain" no longer exists in BD, this is due to the fact that diagnosed brain-dead cases are usually kept under respirator for hours or a few days, prompted by organ retrieval protocols, or because life support is removed.

- 16. In the MRA sequence, done without contrast, it was possible to show slow but intracranial cerebral blood flow.
- 17. In my analysis of the patient's heart rate variability (HRV), there are remaining spectra in the very low (VLF), low (LF), and median frequencies (MB) bands. Also, the frequency of the ventilator is present, but it is possible to observe modulations of amplitude in this peak, which do not only correspond with the ventilator effect. This suggests the preservation of functional modulation of HRV by the autonomic nervous system from structures located at the brainstem.
- 18. I observed the HRV spectra during three experimental conditions: Basal Record,
  Photostimulation, and "Mother talks to the patient." Based on the empirical date provided to me, I
  confirmed that there are clear dynamic changes when comparing the three different conditions,
  indicating an effect of these stimuli to the modulation of the central autonomic nervous system. In
  plain language, the HRV showed she had an emotional content response to the voice of her
  mother.
- 19. It is my opinion, as one who is a defender of brain death, and who believes that brain death does occur, and can be confirmed through testing of the type conducted on Jahi McMath, that this patient DOES NOT ACTUALLY FULFILL THE BRAIN DEATH CRITERIA AND

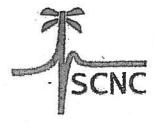
HENCE SHE IS NOT BRAIN DEAD, considering the whole brain criteria of BD.

- 20. The videos I have seen, showing the movement of Jahi's foot and hand at the request of her mother are significant in that there is a request followed, shortly thereafter, by the requested response. I have seen that the patient responded and then was asked by her mother to respond, again, harder, and in a short span thereafter, the patient did as she was requested. I was able to see that during those videos, the patient did not receive any other stimuli like touching her, or even without the effect of external equipment like a fan or an air conditioner.
- 21. I have been informed that the patient has entered menarche and has had a menstrual cycle. I have made a literature review in PubMed, and I have not found any report of a menarche appearance in a brain-dead case.
- 22. I have attached as Exhibit C a power point presentation which I am prepared to give which supports my opinion. I am also doing a 3D modeling but time has not permitted me to finish this as of now.

I declare under the penalty of perjury under the laws of the State of California that the forgoing is true and correct. Signed October\_\_05\_\_, 2014, in \_\_\_Havana\_\_\_\_\_\_, Cuba\_\_\_\_.

#5

Calixto Machado, M.D.



## CUBAN SOCIETY OF CLINICAL NEUROPHYSIOLOGY

Havana, September 29, 2014

DR. PHILLIP A. DE FINA CHAIRMAN & CEO CHIEF SCIENTIFIC OFFICER INTERNATIONAL BRAIN RESEARCH FOUNDATION

Dear Dr. De Fina,

I have carefully reviewed the EEG and MRI studies you have sent to me regarding an anonymous suspected brain-dead case. I processed with my group the Heart Rate Variability to assess the Central Autonomic System with the data you sent me.

## EEG STUDY

The first issue I checked is that the EEG recordings were performed in accordance with Minimum Technical Standards for EEG Recording in Suspected Brain Death (American Clinical Neurophysiology Society). The technologist affirmed that the EEG data was recorded according to the following guidelines:

- 1. A minimum of eight electrodes and reference electrodes to cover the major brain areas.
- 2. Inter-electrode impedances under 10,000 ohms but over 100ohms.

3. Integrity of the entire recording system;

- 4. Inter-electrode distances of at least 10 cm to enlarge the amplitudes and pick up electrical fields originating in deep structures.
- 5. Sensitivity increase up to 20uV/cm during most of the recording to distinguish ECS from low-voltage output EEG.
- 6. Time constant of 0.3-0.4 second.
- 7. Simultaneous ECG recording;
- 8. The length of the recording is no less than 30 minutes.