

Dr. Jan-Marino Ramirez
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Seattle, WA, USA

February 5, 2013

Re: Natalia Zubieta

To Whom It May Concern,

This is to confirm that Natalia Zubieta participated in ongoing research projects at the Center for Integrative Brain Research during the month of January, 2013.

During her stay Natalia Zubieta was very much engaged in the characterization of the neuronal network that controls breathing. She learned how to isolate the breathing center, the so called Pre-Boetzinger complex, from the medulla oblongata of mice. This is a very difficult preparation, since this particular brain area is extremely small and very sensitive. In addition Ms. Zubieta became familiar with an *in vivo* preparation that aims at exposing the ventrolateral medulla from the ventral side in a freely breathing animal. This is also a very difficult microsurgery, which allows direct access to critical nuclei such as the breathing center and the Nucleus ambiguus which contains cardiac vagal presynaptic neurons.

In addition to her exposure to experimental work, Natalia Zubieta participated at numerous seminars and workshops. She was actively involved in various workshops on hypoxia sensitivity of the central respiratory network, on the role of mitochondrial complex I mutations in mitochondrial disease such as Leigh Syndrome, as well consequences of mitochondrial damage on the vestibular nucleus and the behavioral consequences on the response to hypercapnia. She also attended a seminar on the neurobiological action of general anesthetics and participated in an active discussion of the underlying mechanisms. She participated also in a seminar on Brain Computer Interfaces, presented by leading Neurosurgeons and Neuroengineering scientists in the field; and the discussion focused on the future for the basic sciences and the clinic in BCI technology. Ms. Zubieta participated also at the Neurological Surgery Grand Rounds where the Neurosurgeons discussed cases of Mortality and Morbidity, which gave her a first hand experience in one of the biggest Trauma Centers on the West Coast: Harbor View Medical Center. Mrs. Zubieta was also involved in various workshops on Prematurity. During this workshop we discussed the mechanisms underlying Apnea of Prematurity and Stillbirth. She also participated on a lecture on Sudden Unexpected Death of Epilepsy and Drawet Syndrome.

During her stay Ms. Zubieta showed great knowledge and an amazing ability to interact with clinician scientists, basic scientist and physicians. She raised interesting questions and showed great interest in a broad range of areas related to Brain Research, and Translational Medicine. Mrs. Zubieta is a very

hard worker and very dedicated to the Medical Sciences and Neuroscience, and I am very confident that she will assume a leadership role in Academic Medicine in the future.

Please do not hesitate to contact me if you have further questions.

Yours sincerely,

A handwritten signature in black ink, appearing to read "J. M. Ramirez".

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