

TO MARIANAS VARIETY (WITH COPY TO MS. CATHLEEN MOORE-LINN)

From: Luis Szyfres, MD, MPH
Date: 12/08/06 14:36:02
To: NEWS Mar-Vic Cagurangan
Cc: cmoore@guam.uog.edu

Subject: FROM:DR.SZYFRES TO:MARIANAS.VARIETY/MS.CAGURANGAN
RE:CLARIFICATION

Dear MarVic:

I'm very happy to see that you included in today's edition my clarification about Environmental Contamination VS Lytico Bodig. "The fact that the only way that toxic heavy metals can get to the brain is through the blood, and that they can only get to the blood through the food, water, or air contaminated with heavy metals, proves that the toxic chemicals are not only in the environment of Guam, but in Guamanians as well," he added, clarifies my initial commentary:
1 That the high concentrations of toxic chemicals reported by the federal government are not only in the water, soil, etc, but in people as well.

2 That the toxic chemicals in blood represent serious risk factors associated with diseases of many organs and systems, and not just the neurological system.

Now, we can try our best to inform/help the community in both issues, without creating confusion.

All the best,

Luis

After I received your Memo, I spent a long time trying to understand what you are referring to. We had two long meetings about my research on the contamination of Guam with Toxic Chemicals, but in your Memo, you are saying....

- "You must ensure that any research reports distributed publicly or draft manuscripts submitted for external review or accepted for publication with regard to your research on Lytico-Bodig....."

My research in Lytico-Bodig? In your opinion, I am with all the senators in the Commission of the Legislature of Guam to conduct research in Lytico-Bodig? I suggest you call the speaker of the house, the senators, and the now Lieutenant Governor of Guam. They will inform you that the contamination of Guam with Toxic Chemicals and Lytico-Bodig are not the same thing. The only connection is that the metals in the Brain come from the environmental contamination.

- Another factor of major interest in the epidemiological characterization of the magnitude, frequency, distribution, trends, patterns, and associated factors of the problem of the presence of toxic chemicals in the food, water, and air on Guam, is the determination of the number of people in our community that have toxic chemicals in their organism. Has during the research on Lytico-Bodig,

UOG with the other universities collected blood samples from Guamanians during Forty Years, the specimens are invaluable. Has during the study of the Chamorro brains the researchers found Toxic Metals, it would call my attention if they did not test the specimens for the chemicals, to evaluate the correlation between the presence and concentrations of the metals ions in blood, and the occurrence and characteristics of both, ALS and Parkinson Disease. If for unknown reasons, the university did not test the blood samples, they are already collected and stored; we only need to test them.

-In relation to the reporting of the blood results tests, the University of Guam was reporting very few results, which has been improving recently. However, the law mandates the full report of all results ASAP.

Code of Federal Regulations. TITLE 45

DEPARTMENT OF HEALTH AND HUMAN SERVICES

PUBLIC WELFARE. PART 46. PROTECTION OF HUMAN SUBJECTS

Revised June 23, 2005;
Effective June 23, 2005

§46.101 To what does this policy apply?. Research involving the collection or study of existing data, documents, records, pathological specimens, or diagnostic specimens.

Intervention includes both physical procedures by which data are gathered (for example, venipuncture) and manipulations of the subject or the subject's environment that are performed for research purposes.

§46.111 Criteria for IRB approval of research. Informed consent will be sought from each prospective subject or the subject's legally authorized representative, in accordance with, and to the extent required by §46.116.

Informed consent will be appropriately documented, in accordance with, and to the extent required by §46.117.

§46.113 Suspension or termination of IRB approval of research. An IRB shall have authority to suspend or terminate approval of research that is not being conducted in accordance with the IRB's requirements or that has been associated with unexpected serious harm to subjects. Any suspension or termination of approval shall include a statement of the reasons for the IRB's action and shall be reported promptly to the investigator, appropriate institutional officials, and the department or agency head. (Approved by the Office of Management and Budget under control number 0990-0260.)

§46.122 Use of Federal funds. Federal funds administered by a department or agency may not be expended for research involving human subjects unless the requirements of this policy have been satisfied.

§46.123 Early termination of research support: Evaluation of applications and proposals. The department or agency head may require that department or agency support for any project be terminated or suspended in the manner prescribed in applicable program requirements, when the

department or agency head finds an institution has materially failed to comply with the terms of this policy.

- “This written warning will be placed in your Official Personnel File. In addition to this warning, I am adding a requirement to your CFES plan for this academic year. This requirement is that you prepare a comprehensive review of the available scientific literature on neurodegenerative diseases in Guam and present it for peer review and possible publication”...?Once again, I am preparing a comprehensive review on the contamination of Guam’s environment with Toxic Chemicals and their effects in the Health of the Guamanians, not on Lytico-Bodig.

-By the way, as you know very well, I am a Physician with Three Medical Specialties, a Master Degree, and Two Postdoctoral Fellowships, none of them in Neurology.

3. ASSOCIATION BETWEEN THE ENVIRONMENTAL CONTAMINATION OF GUAM WITH TOXIC CHEMICALS, AND LYTICO-BODIG.

Talking about ironies... the same Federal Agency that is funding all the studies on Neurodegenerative Diseases, the National Institute of Aging (NIA), is precisely the one that supports the association between environmental contamination and Lytico-Bodig, while the... NIA-funded University of Guam, not only does not bother to evaluate that possibility, but states publicly that there is no environmental contamination. Let me give you some examples, even at the risk that, like you state in your Memo “.... There may be a basis to consider more stringent disciplinary measures”

q NATIONAL INSTITUTE OF AGING (NIA) Intramural Research Program, and Department of Neuroscience, the JOHNS HOPKINS UNIVERSITY, School of Medicine, Baltimore, Maryland.

Metal-catalyzed disruption of membrane protein and lipid signaling in the pathogenesis of neurodegenerative disorders. Laboratory of Neurosciences, Mattson MP. Ann N Y Acad Sci. 2004 Mar;1012:37-50.

Membrane lipid peroxidation and oxidative modification of various membrane and associated proteins (e.g., receptors, ion transporters and channels, and signal transduction and cytoskeletal proteins) occur in a range of neurodegenerative disorders. This membrane-associated oxidative stress (MAOS) is promoted by redox-active metals, most notably IRON and COPPER. The mechanisms whereby different genetic and environmental factors initiate MAOS in specific neurological disorders are being elucidated. In Alzheimer's disease (AD), the amyloid beta-peptide generates reactive oxygen species and induces MAOS, resulting in disruption of cellular calcium homeostasis. In Parkinson's disease (PD), mitochondrial toxins and perturbed ubiquitin-dependent proteolysis may impair ATP production and increase oxyradical production and MAOS. Increased MAOS occurs in Amyotrophic lateral sclerosis (ALS) as the result of genetic

abnormalities (e.g., COPPER/ZINC-superoxide dismutase mutations) or exposure to environmental toxins. Levels of iron are increased in vulnerable neuronal populations in

AD and PD, and dietary and pharmacological manipulations of iron and copper modify the course of the disease in mouse models of AD and PD in ways that suggest a role for these metals in disease pathogenesis. An increasing number of pharmacological and dietary interventions are being identified that can suppress MAOS and neuronal damage and improve functional outcome in animal models of AD, PD, HD, and ALS.

Novel preventative and therapeutic approaches for neurodegenerative disorders are emerging from basic research on the molecular and cellular actions of metals and MAOS in neural cells
PMID: 15105254 [PubMed - indexed for MEDLINE]

q Elevated levels of ferromagnetic metals in foodchains supporting the Guam cluster of neurodegeneration: do metal nucleated crystal contaminants [corrected] evoke magnetic fields that initiate the progressive pathogenesis of neurodegeneration.

Purdey M. High Barn Farm, Elworthy, Taunton, Somerset TA4 3PX, UK.

Elevated levels of aluminum (Al), strontium (Sr), barium (Ba), iron (Fe), manganese (Mn) cations - combined with deficiencies of magnesium (Mg)/calcium (Ca) - have been observed in the foodchains that traditionally support the Chamorro populations affected by high incidence clusters of Alzheimer (AD), Parkinson-like (PD), motor neurone diseases and multiple sclerosis on the island of Guam. Soils drawn from the cluster region demonstrated an excessive fivefold increase in 'magnetic susceptibility' readings in relation to soils from disease free adjoining regions.

Once gut/blood brain barrier permeability is impaired, the increased uptake of Al, Fe, Sr, Ba, or Mn into the Mg/Ca depleted brain leads to rogue metal substitutions at the Mg/Ca vacated binding domains on various enzyme/proteoglycan groups, causing a broad ranging disruption in Mg/Ca dependent systems - such as the glutamine synthetase which prevents the accumulation of neurotoxic glutamate. The rogue metals chelate sulphate, disrupting sulphated-proteoglycan mediated inhibition of crystal proliferation, as well as its regulation of the Fibroblast growth factor receptor complex, which disturbs the molecular conformation of those receptors and their regulation of transphosphorylation between intracellular kinase domains; ultimately collapsing proteoglycan mediated cell-cell signalling pathways which maintain the growth and structural integrity of the neuronal networks. The depression of Mg/Ca dependent systems in conjunction with the progressive ferrimagnetisation of the CNS due to an overload of rogue ferroelectric/ferromagnetic metal contaminants, enables 'seeding' of metal-protein crystalline arrays that can proliferate in the proteoglycan depleted brain. The resulting magnetic field emissions initiate a free radical mediated progressive pathogenesis of neurodegeneration.

The co-clustering of these various types of disease in select geographical pockets suggests that all of these conditions share a common early life exposure to ferromagnetic metal nucleating agents in their multifactorial aetiology.

PMID: 15488650 [PubMed - indexed for MEDLINE]

q Concentrations of Cd, Co, Cu, Fe, Mn, Rb, V, and Zn in formalin-fixed brain tissue in amyotrophic lateral sclerosis and Parkinsonism-dementia complex of Guam determined by High-resolution ICP-MS.

Gellein K ; Garruto RM ; Syversen T ; Sjbakk TE ; Flaten TP.

Norw.University of Science and Technology. Biol Trace Elem Res. 2003;
96(1-3):39-60 (ISSN:
0163-4984).

Amyotrophic lateral sclerosis (ALS) and parkinsonism-dementia complex (PDC) are neurodegenerative disorders that occurred with extremely high frequency among the native population on Guam, especially in the 1950s and 1960s, but have substantially declined over the last half-century.

The most plausible hypothesis centers on imbalances in essential and toxic metals. We have determined the concentrations of Cd, Co, Cu, Fe, Mn, Rb, V, and Zn in formalin-fixed brain tissue collected during the period 1979-1983 from eight Guamanian patients with ALS, four with PDC, and five control subjects using high-resolution inductively coupled plasma-mass spectrometry. The concentrations of Cd are markedly and significantly elevated both in gray and white matter in ALS, but not in PDC patients. The concentrations of Zn are elevated for both patient groups, in both gray and white matter, but only the difference in gray matter for PDC is significant. For the other metals, no significant differences are found.

PreMedline Identifier: 14716085

q Neurofibrillary tangles in the primary motor cortex in Guamanian amyotrophic lateral sclerosis/parkinsonism-dementia complex.

Mount Sinai School of
Medicine, New York

Neurobiology of Aging Laboratories . Hof PR ; Perl DP. Neurosci Lett.
2002; 328(3):294-8 (ISSN: 0304-3940)

The amyotrophic lateral sclerosis/parkinsonism-dementia complex is a chronic neurodegenerative disorder with high prevalence among the native Chamorro population of Guam. The cortical pathology of the disease is characterized by the widespread occurrence of cortical neurofibrillary tangles that exhibit a specific laminar and regional distribution different from that seen in Alzheimer's disease (AD).

We report here that the primary motor cortex in Guamanian cases contains high numbers of neurofibrillary tangles, contrasting sharply with the situation in AD and in non-Chamorro cases of amyotrophic lateral sclerosis. Furthermore, the cases with predominant parkinsonism-dementia are more severely affected than amyotrophic lateral sclerosis cases.

These data suggest that the regional and cellular pathology of Guamanian cases differs radically from that commonly observed in neurodegenerative diseases outside Guam and point to the existence of subgroups in the spectrum of clinical manifestations seen in Guamanian patients.
PreMedline Identifier: 12147329

q Disappearance of ALS from Guam: implications for exogenous causes. Chen KM.
Department of Neurology, Guam Memorial Hospital 1995 Dec;35(12):1549-53.

The author reports the disappearance of amyotrophic lateral sclerosis (ALS) from Guam over past 30 years, which coincided with rapid changes in the ecology, socioeconomy, and

westernization of the life style. This slow but steady decline is believed to be the consequences of radical changes from food collection to wage-based life style and dietary improvement in recent years and elimination of exogenous factors. Those risk factor(s) are the environmental metals which must have triggered the accelerated oxidative stresses in the motor neurons.

Changing Epidemiology:

- a. The annual incidence of 70/100,000 in 1960s down to 7/100,000 in 1990s, and remained unchanged for past 15 years.
- b. No increase in the incidence of ALS among non-Chamorros transients of Guam and Marianas during W.W.II.
- c. Long-term resident non-Charmorro and half-Chamorros on Guam are also affected.
- d. Charmorro migrants to U.S. Mainland are affected after long absence from Guam.
- e. Incubation period for both ways is estimated to be 18 approximately 20 years.

Socioeconomic Changes:

- a) Shift in population demography; Efflux of Chamorros and Influx of aliens; Chamorros less than 50% by 1990.
- b) Tourists passed 1 million in 1994.
- c) Westernization: After W.W.II, almost free access to Military Commissary for imported food and appliances.
- d) Life style: from food collection to wage-based society.

[Indexed for MEDLINE]

4. ABOUT CENSORSHIP AND INNACURATE FALSE STATEMENTS

Your Memo states “that Allen refused to renew his (your) contract with the UOG Cancer Research Center, and asked him (you) to sop my research...” Another irony, according to the Reappointment Procedures.... “The appropriate Administrator (in my case is you) will remind Faculty members of the need to apply for reappointment”. “Faculty reappointment evaluations will be completed in the fourth consecutive semester of service”.

I was hired on a three-year tenure-track contractual appointment on June 2005. I had to apply before November 2007. It was not President Allen that told that he was not going to renew the contract, it was you that told me not to apply because, even if all the members of the Reappointment Committee voted for my reappointment, Drs. Allen and Whippy were going to veto the faculty member’s decision..... “IF THERE IS ANY DOUBT ABOUT THIS STATEMENT, PLEASE EXPLAIN WHY YOU THERE IS NO REAPPOINTMENT

APPLICATION OR REAPPOINTMENT COMMITTEE"UPON DIRECTION FROM THE APPROPRIATE ADMINISTRATOR (YOU), THE FACULTY MEMBER'S UNIT WILL ELECT ONE MEMBER FROM THE UNIT, ETC"AND.... IT WAS NOT DR. ALLEN WHO TOLD ME THAT HE WAS ANGRY THAT I INFORMED THE COMMUNITY (THROUGH THE M. VARIETY) ABOUT THE DISEASES ASSOCIATED WITH THE EXPOSURE TO TOXIC CHEMICALS, AND WANTED ME OUT OF UOG AT ONCE BY BUYING BACK THE REMAINDER OF MY THREE-YEAR CONTRACT...IT WAS YOU, BUT THIS TIME IT IS NOT HEARSAY....IT IS RECORDED.

Dr. Szyfres

CC: members of the Guam Legislature Right To Know Commission:

Ex-Senator-Lieutenant Governor/ Mike Cruz; Speaker of the House/Senator Mark Forbes,
Senator Won Pat, Senator Antonio Umpingco, Senator Frank Blas, Jr.,
Senator Tina Muna-Barnes.

CC: Attorney General, Alicia Limtiaco