MERCURY TOXICITY: GENETIC SUSCEPTIBILITY AND SYNERGISTIC EFFECTS

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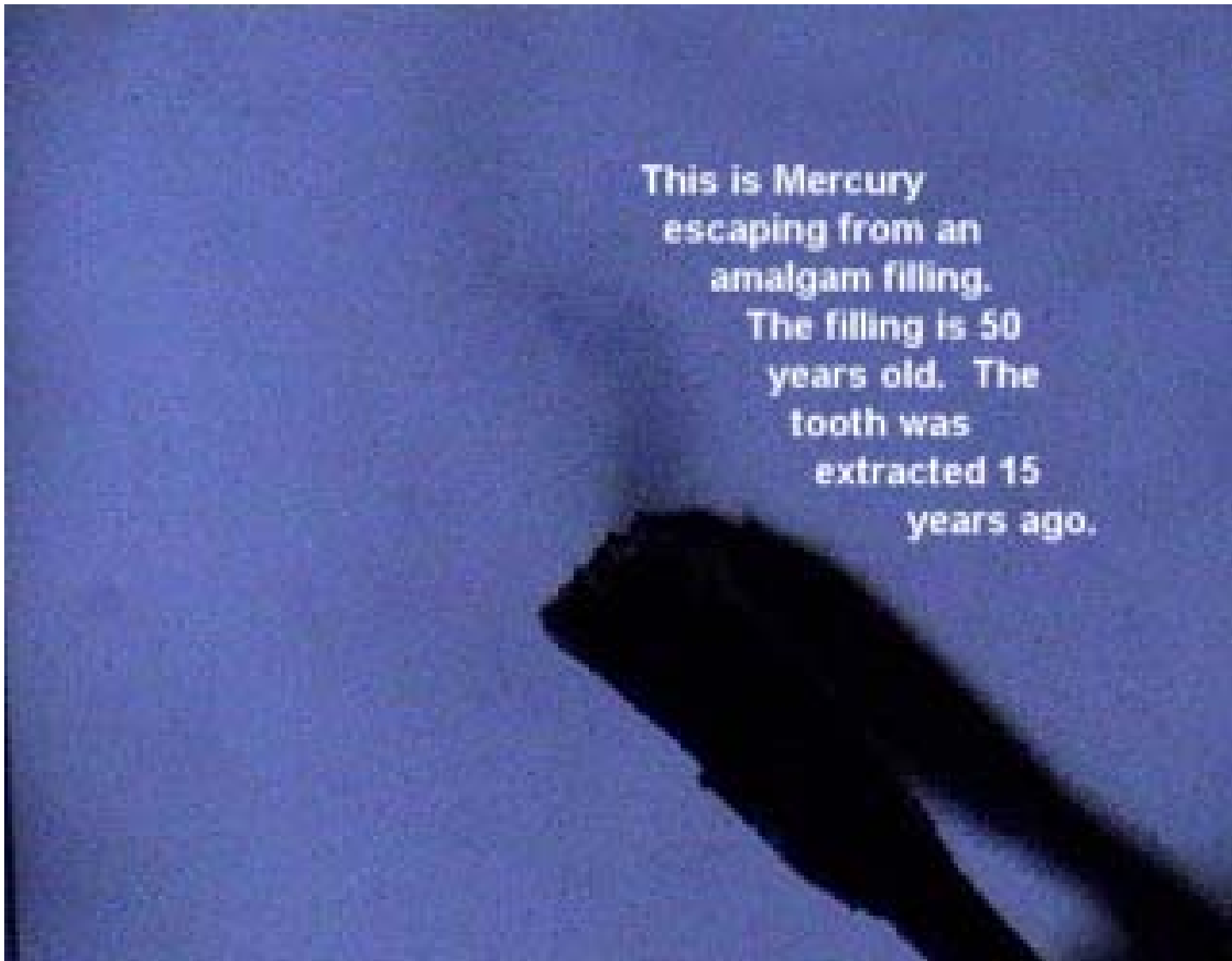
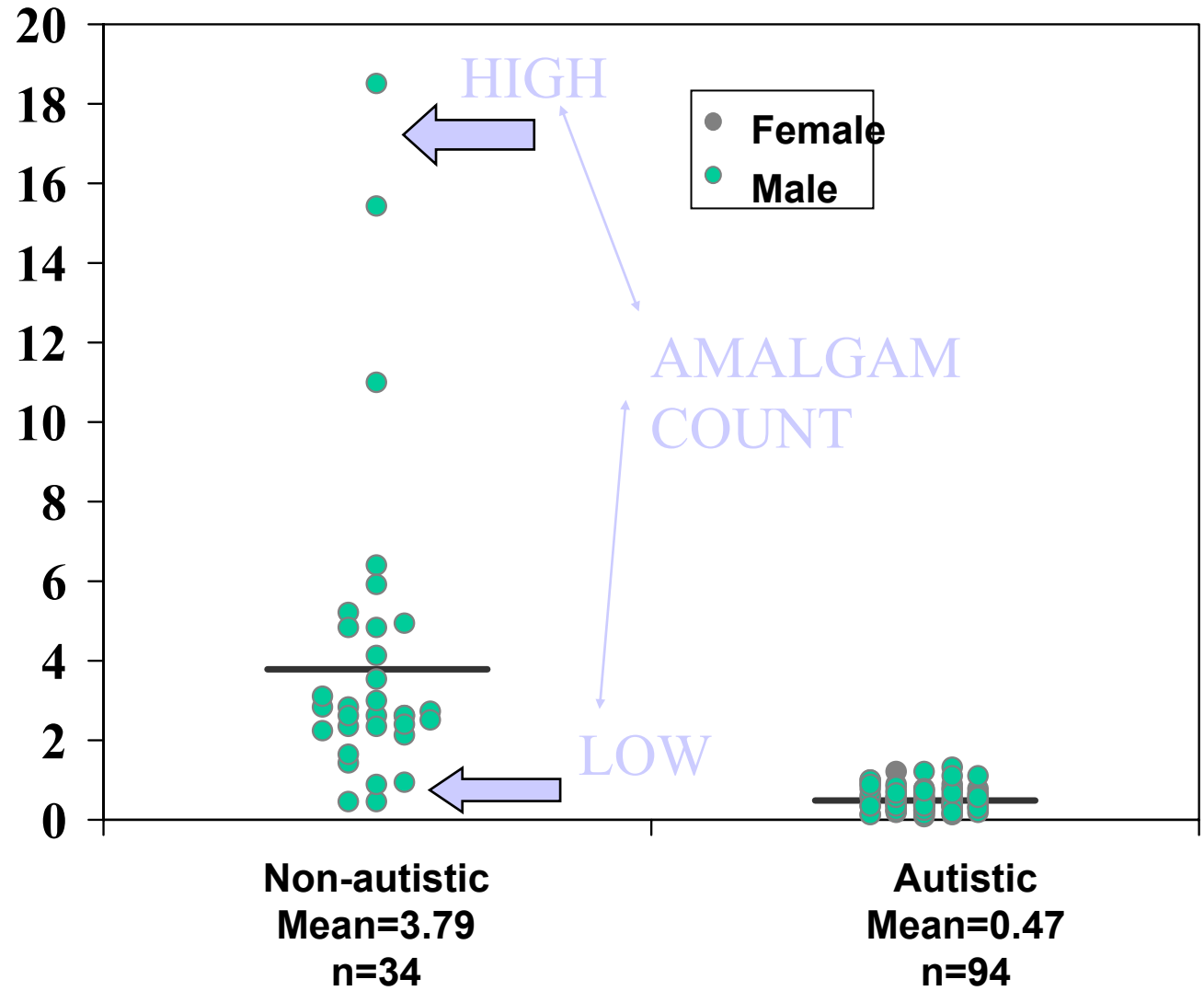
VISUALIZATION OF MERCURY EMITTING FROM A DENTAL AMALGAM

- From: www.uninformedconsent.com
- David Kennedy's IAOMT tape

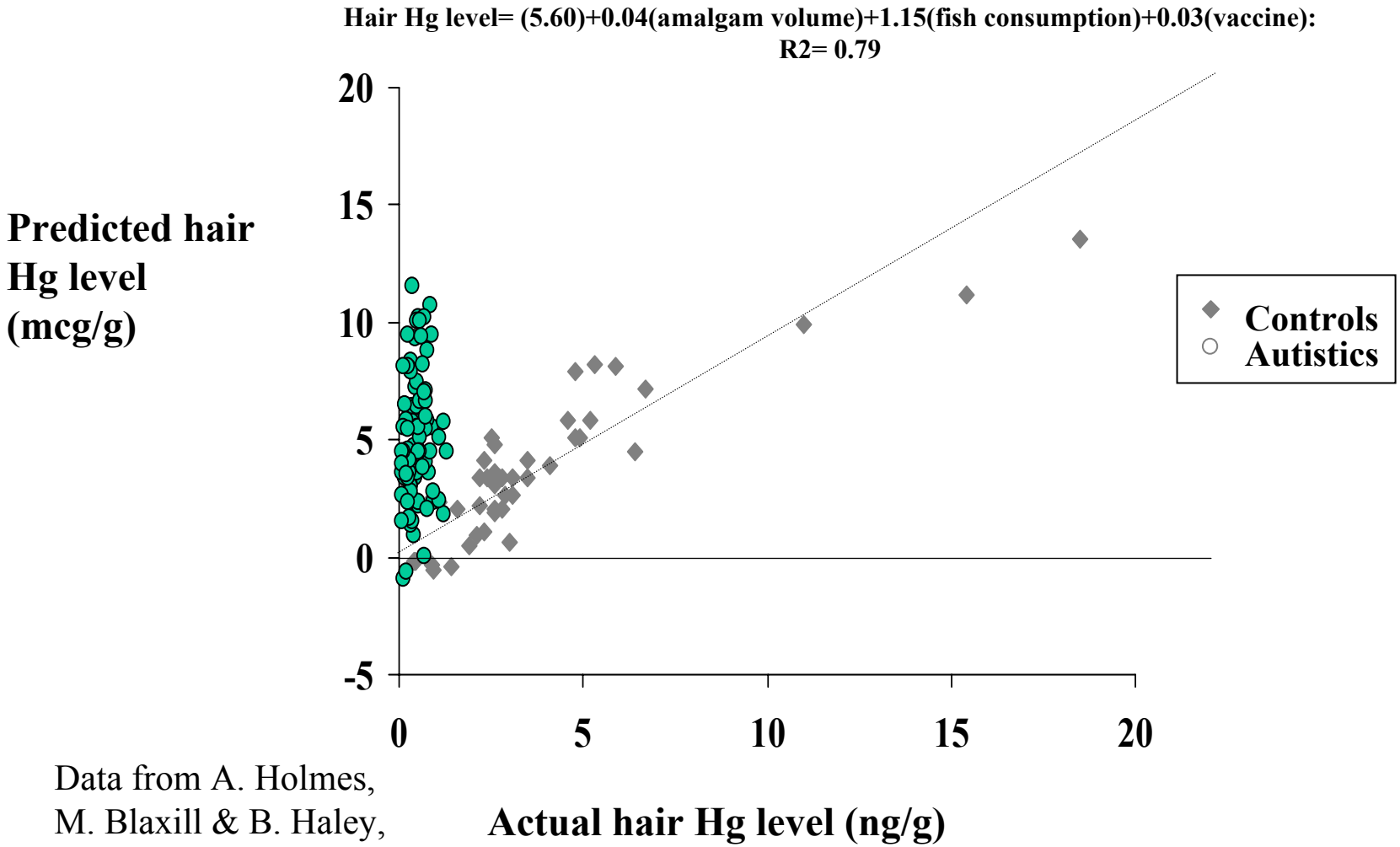


BIRTH-HAIR MERCURY OF AUTISTIC VS. CONTROL GROUPS



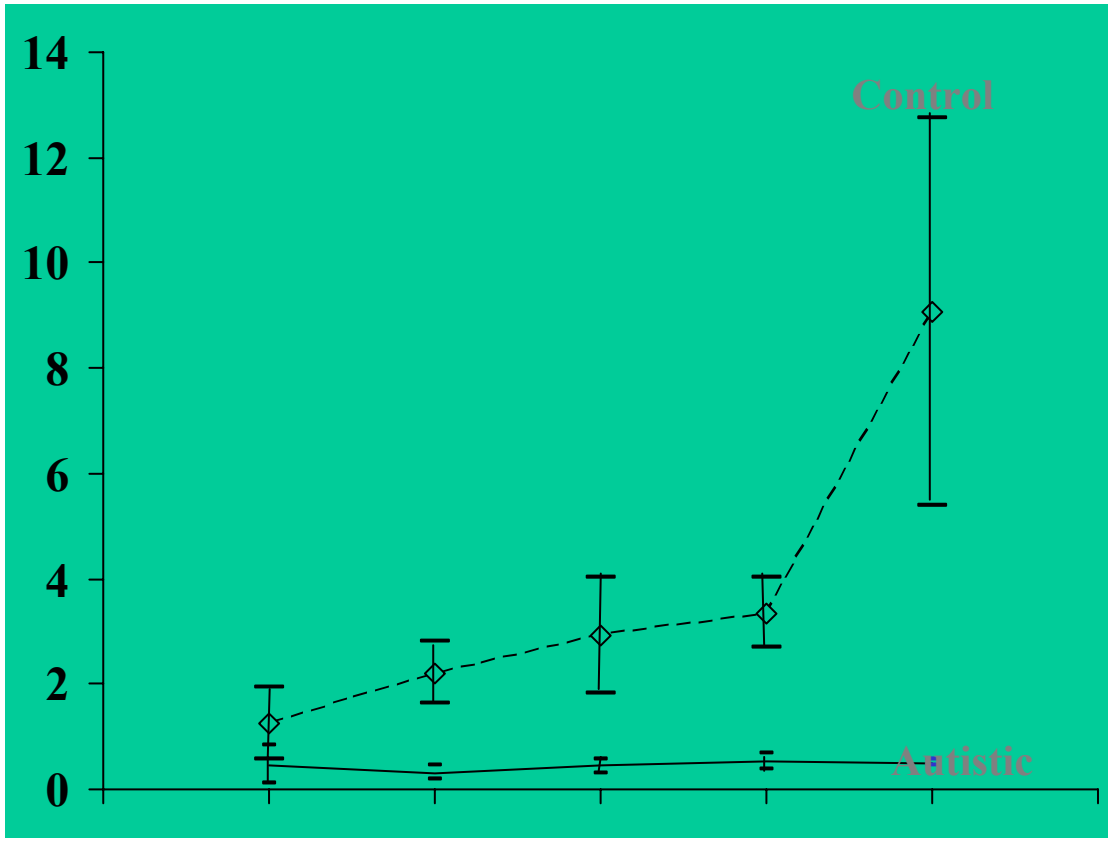
Data from Amy Holmes, Mark Blaxill & Boyd Haley, Int. J. Toxicology v22, P 1-9, 2003

ACTUAL VERSUS PREDICTED BIRTH HAIR MERCURY LEVELS



Data from A. Holmes, M. Blaxill & B. Haley, Int. J. Toxicology, V22, p1-9, 2003

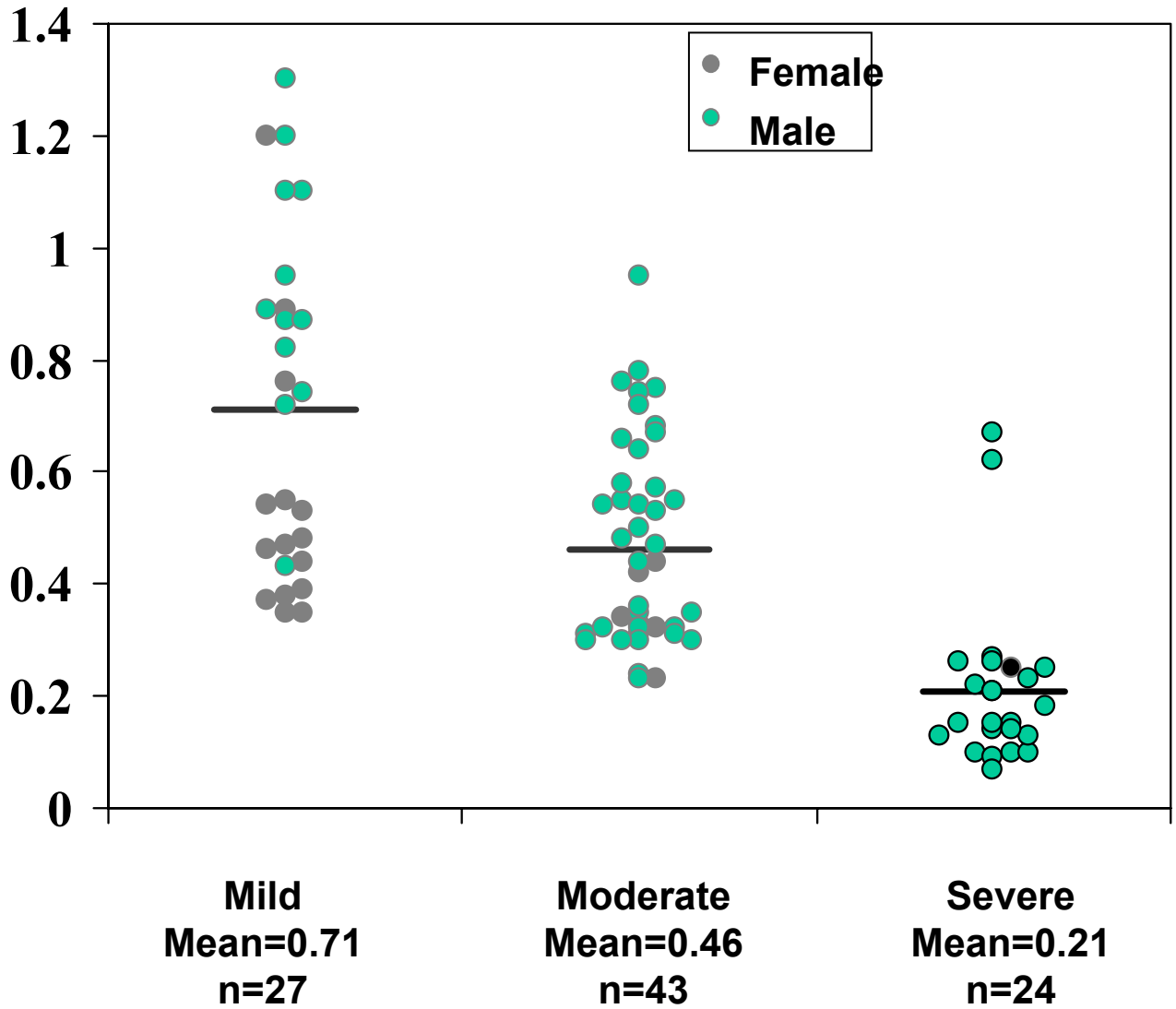
MERCURY BIRTH HAIR LEVELS VS. AMALGAM FILLINGS IN AUTISTIC AND CONTROL GROUPS



Data from A. Holmes, M. Blaxill & B. Haley, Int. J. of Toxicology v22, p1-9, 2003

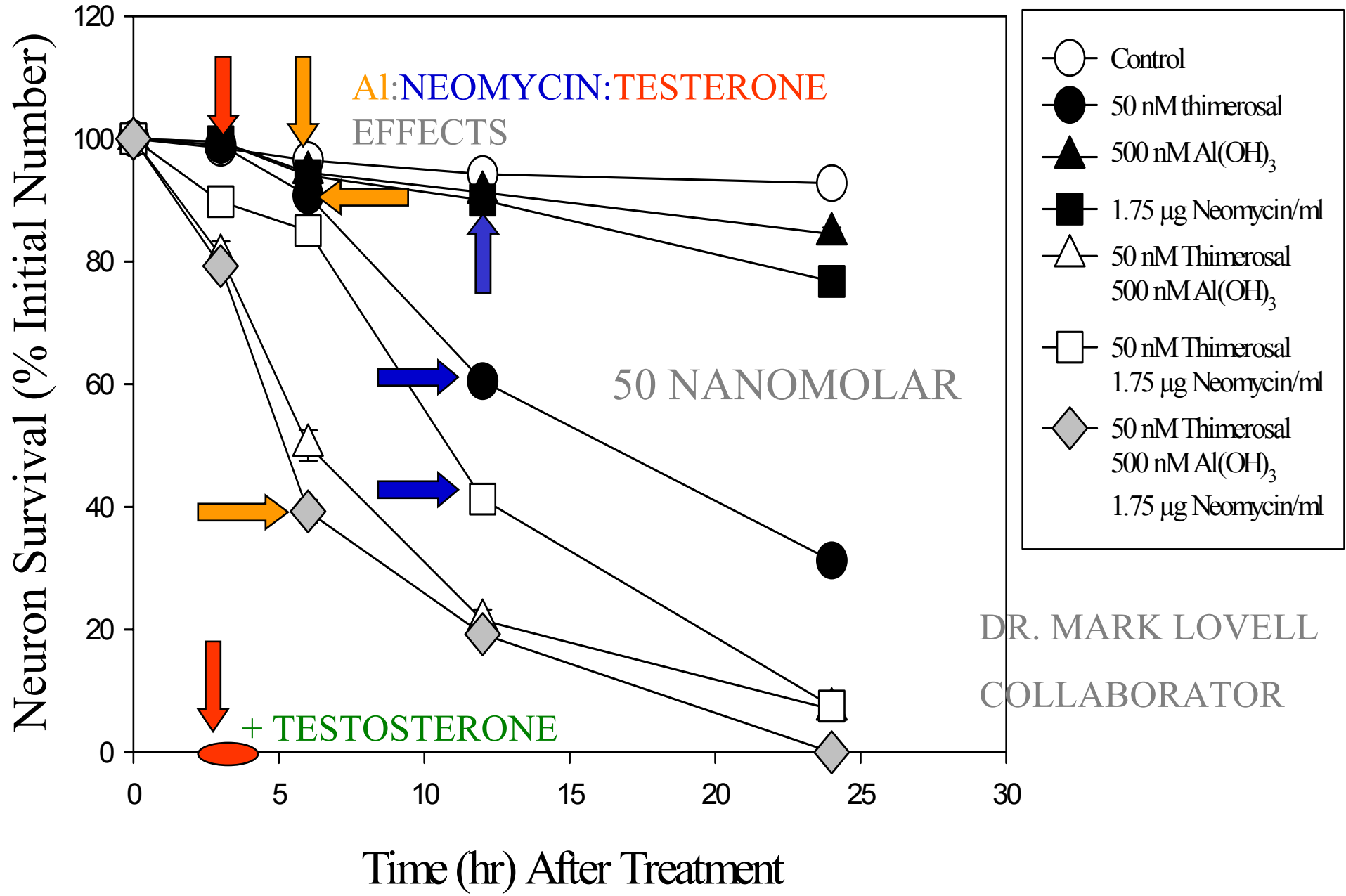
Number of amalgams:	0-3	4-5	6-7	8-9	≥10
Control: autistic ratio:	2.64	6.93	6.70	6.32	17.91
N:	15	22	29	30	43

BIRTH-HAIR MERCURY BY SEVERITY OF AUTISM



Data from Amy Holmes, Mark Blaxill & Boyd Haley, Int. J. Tocicology v22, p1-9, 2003.

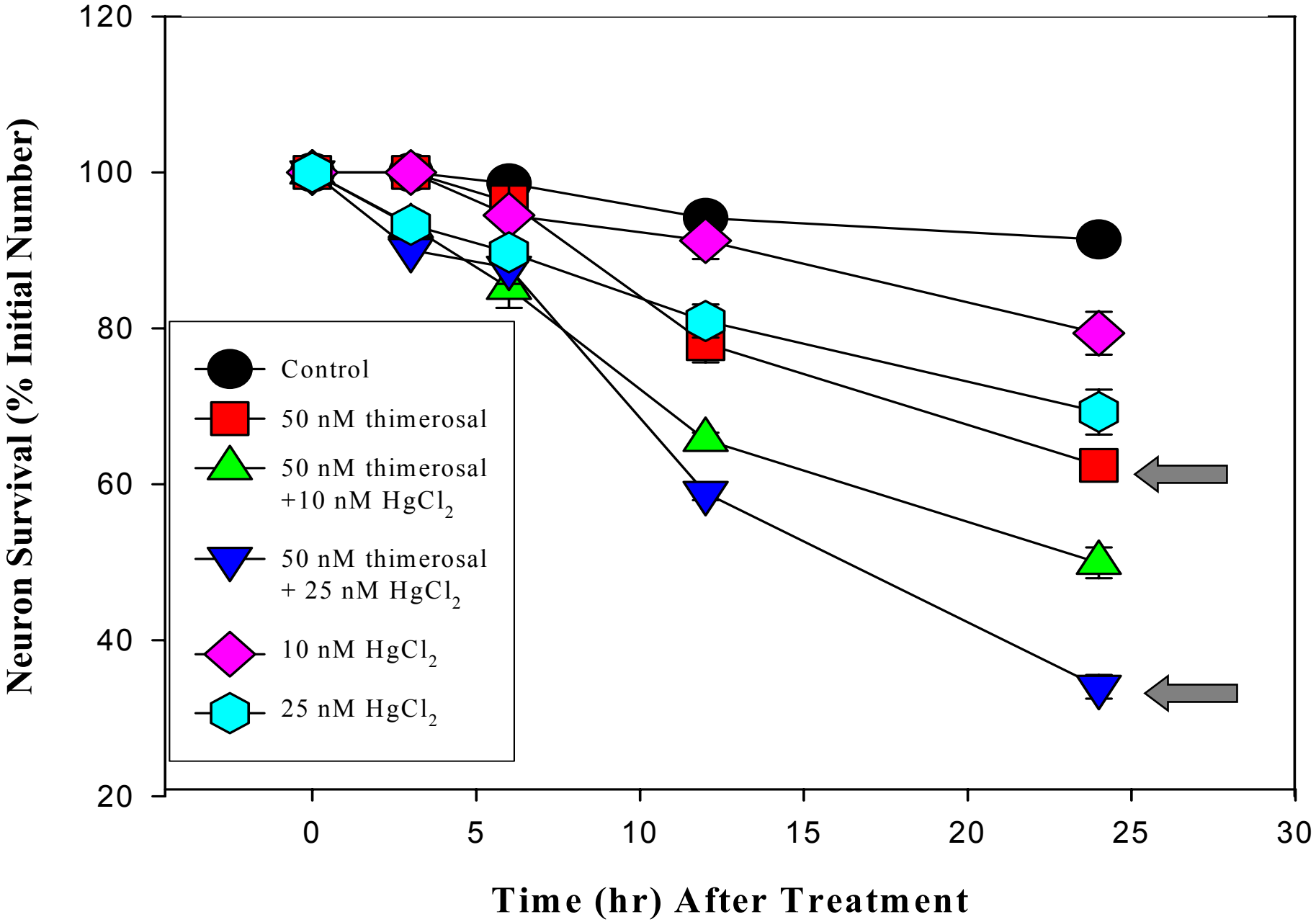
SYNERGISTIC TOXICITIES



DR. MARK LOVELL

COLLABORATOR

Hg & THIMEROSAL DISPLAY ADDITIVE TOXICITIES.



ACRODYNIA: PINK DISEASE

- Acrodynia affected 1 of 500 infants in the early 1900s in the USA. The cause was Hg_2Cl_2 (calomel) in the teething powder used on infants. The powder was removed from the market and acrodynia disappeared.
- This historical fact implies that low level exposure of infants to one of the least toxic forms of mercury can cause a neurological disease.

ELEVATED MERCURY IN IDIOPATHIC DILATED CARDIOMYOPATHY (IDCM).

WHERE DOES Hg COME FROM?

LEVELS ng/g	Hg	Sb
Controls	8.0	1.5
IDCM	178,400	19.260

Frustaci et al., J. of American College of Cardiology, 33, (6) 1578, 1999.

Controls were patients with valvular or ischemic heart disease.

Question is 'where does this mercury come from?' Athletic youth die of IDCM.

M. Bauman K. Nelson & Paper

- "In contrast, in the Sechylles study of >700 children, exposure was to marine fish only, and boys with higher levels of hair mercury performed better on some tests, including the Boston Naming Test and 2 tests of visual motor coordination."
- The above observation has lead some to dismiss Hg as being causal for any neurological problems in youth.
- However, it is likely in light of the autistic observations that the boys with higher hair Hg levels were the best at excreting Hg or Methyl-Hg.

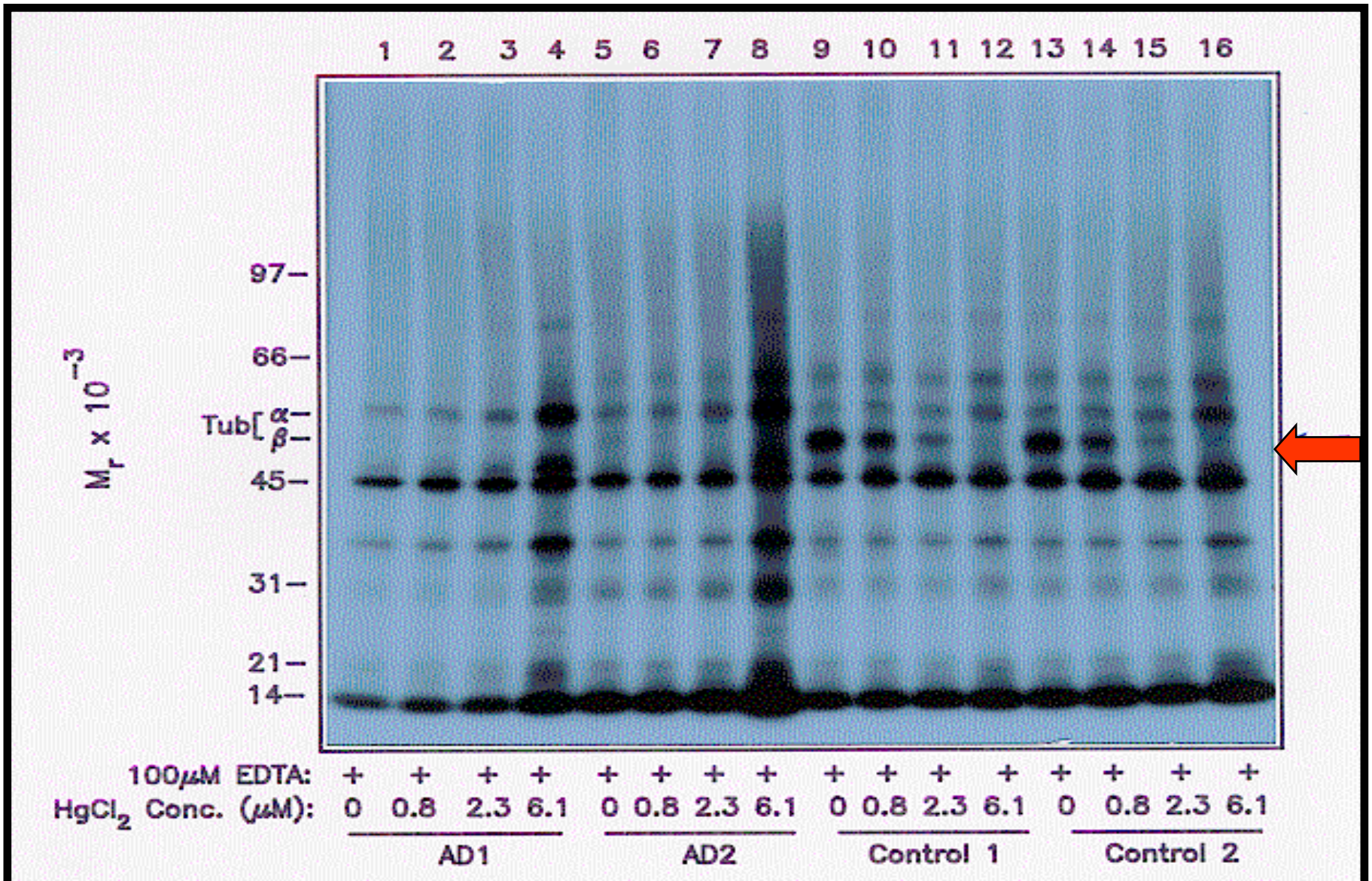
Hg levels in hair & nails of AD

- Ehmann, Markesbery et al. Neurotoxicology 9(2)197-208. Trace Element Imbalances in Hair and Nails of Alzheimer's Diseased Patients. Ehman, Markesbery et al. Biological Trace Element Research, pp461-470. Editor:G.N. Schrauzer, 1990 by the Humana Press, Inc.
- **"Mercury is decreased in the nail of AD subjects compared to controls"**
- **"Mercury tended to decrease in nail with increasing age of patient, and with the duration and severity of the dementia."**
- **"This decrease is counter to the elevated levels of Hg observed in AD brain, as compared to age-matched controls."**

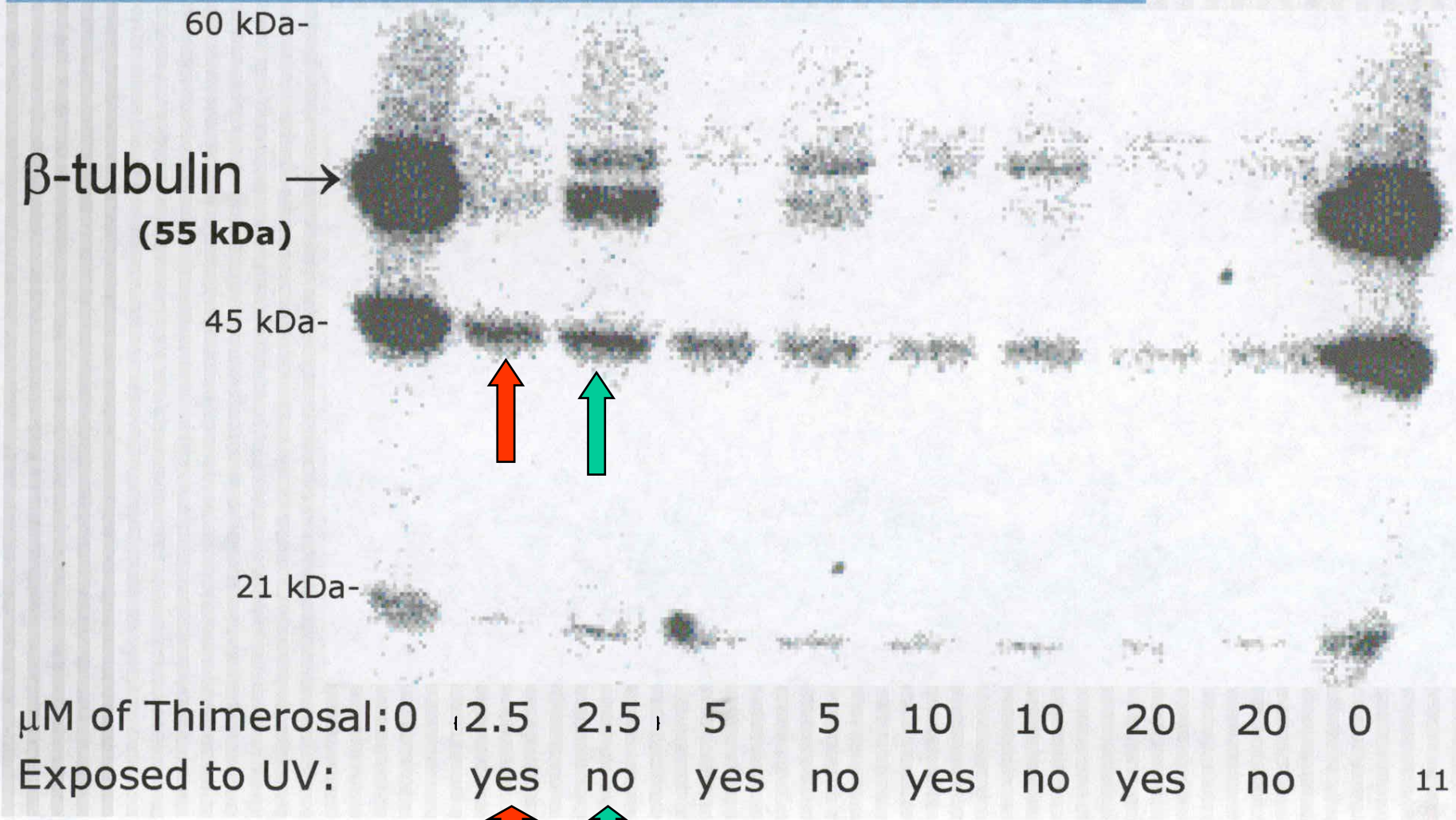
Hg Levels in Human Brain

- Saxe et al, with Ehmann and Markesbery in Alzheimer's Disease, Dental Amalgam and Mercury, JADA v130, p191-199, 1999, determined Hg levels in the brains of 101 human subjects, **mostly Nuns**, both AD and normals.
- The histogram in this paper showed 6 of 101 subjects with brain Hg levels above 200 ng/g wet weight (C=236, 248, 319: AD=394, 622, 698). This represents between 1.2 & 3.5 micromolar, or highly toxic, levels of Hg in 6% of these subjects. **At 100 ng/g Hg this increases to about 15% of subjects with highly toxic levels of brain mercury.**
- This indicates that certain adult individuals do not effectively excrete mercury from their brain tissue.

HgEDTA Induces Aberrant [^{32}P]8N$_3$GTP-ß-Tubulin Interactions Indicative of AD



Autoradiogram Showing Thimerosal Inhibition of [γ^{32}P]8N_3GTP Photolabeling of Brain β-tubulin



CONTRAST BETWEEN BIRTH HAIR Hg LEVELS AND BODY Hg LEVELS

- Autistic children have much lower Hg levels in their birth hair, yet
- Numerous physicians have reported that autistic children carry a higher mercury body burden than control children.
- The obvious explanation is micro-mercuralism & genetic susceptibility to retention toxicity.
- There is an obvious gender difference. This is explained by testosterone effects on T-toxicity.

CONCLUSIONS

- THERE APPEARS TO BE A SUBSET OF THE POPULATION THAT CANNOT EFFECTIVELY EXCRETE MERCURY AND ARE AT GREATER RISK TO EXPOSURES TO MERCURY THAN ARE THE GENERAL POPULATION. GENETIC SUSCEPTIBILITY IS CRITICAL.
- PRESENCE OF OTHER HEAVY METALS , ANTIBIOTICS, ETC. MAY ENHANCE THE TOXICITY OF THIMEROSAL. SYNERGISTIC TOXICITIES MUST BE CONSIDERED.
- ESTROGEN DECREASES THIMEROSAL TOXICITY WHEREAS TESTOSTERON INCREASES THE TOXICITY. GENDER EFFECTS ARE INVOLVED.