

**TESTIMONY TO CALIFORNIA ASSEMBLY AGRICULTURE COMMITTEE – 4/16/08
ELISA SONG M.D.**

SHORT VERSION

Good afternoon Madam Chair and Committee members. My name is Dr. Elisa Song. I am a pediatrician practicing in the Bay Area with a focus on environmental medicine. Thank you for allowing me to speak to you today regarding the health risks to children of the light brown apple moth aerial spray and in support of AB 2892.

I am here to speak to you of what I know and see everyday in my practice – that our children are suffering from the toxic world that they live in. And I am concerned that the spraying of the Light Brown Apple Moth with Checkmate will contribute to this toxicity and result in illnesses of more children like those who became ill after the spraying in Monterey and Santa Cruz last fall.

I would like to highlight 3 main points:

1) Children are more vulnerable, pound for pound, to exposure to toxins. Not only do they absorb more toxins than adults, but more of these toxins will pass into their developing brains. And children have immature liver detoxification capacities, further compounding their vulnerability. Some may have genetic mutations called SNP's that alter their detoxification capabilities, making them even more susceptible to low doses of environmental toxins and exposures. It is impossible to predict who will have trouble processing and eliminating these chemicals, but for this population, even very low doses of a purportedly innocuous chemical like Checkmate can have major health consequences.

2) Secondly, we already know that Checkmate contains chemicals associated with illness as well as untested chemicals released in microscopic plastic capsules, and that children became ill after spraying in Monterey and Santa Cruz. The state report released last week on the health complaints for last fall, though it was reported in the media as showing no link between the spraying and the illnesses, actually concludes that: "It is not possible for several reasons to conclusively determine whether or not there is a link between the reported symptoms and the aerial spraying."

The Office of Environmental Health Hazard Assessment, which released the report, did not contact any of those people who reported illnesses or their physicians, and discarded many of the complaints as incomplete rather than

following up and investigating them. This report was not a scientific study of the complaints and does not reassure us in the medical community about the safety of the spray.

3) Finally, the rates of illness and verifiable contamination of our children from pesticides and other similar environmental toxins are alarming and are associated with both short and long-term health consequences.

Several illnesses can be linked to exposure to environmental toxins, including asthma, autoimmune illness, and autism. And the rates of chronic illnesses in children are disturbingly on the rise. We know children became sick following the spraying last fall, including one 12-month boy who nearly died from respiratory arrest and experienced a subsequent attack some weeks later. That boy was fortunate to receive prompt, excellent medical care. Children without health insurance in poor areas in our cities may not be so lucky. A public health system that is already severely strained in most counties will suffer from this increased burden. And the children in my practice, already suffering from asthma and other chronic illnesses, will be even more vulnerable to the effects of this airborne spray.

If there is even a plausible doubt that Checkmate could have harmful neurodevelopmental and health effects on our most vulnerable populations, then why would we even consider that risk to our children's future?

Children have no voice, and rely on their parents and the wisdom of elected officials to be that voice for them. It is only just that parents be given the right to be fully informed and decide if the benefits of spraying outweigh the risks to their children. I urge you to vote for AB 2892 and ensure that children get that voice that they are currently lacking.

Thank you for protecting the health and well-being of our children and most vulnerable populations.

LONG VERSION

Good afternoon Madam Chair and Committee members. My name is Dr. Elisa Song. I am a pediatrician practicing in the Bay Area with a focus on environmental medicine. Thank you for allowing me to speak to you today regarding the health risks to children of the light brown apple moth aerial spray and in support of AB 2892.

I am here to speak to you of what I know and see everyday in my practice – that our children are suffering from the toxic world that they live in. And I am concerned that the spraying of the Light Brown Apple Moth with Checkmate will contribute to this toxicity and result in illnesses of more children like those who became ill after the spraying in Monterey and Santa Cruz last fall.

I would like to highlight 3 main points:

1) First, Children are more vulnerable, pound for pound, to exposure to toxins than adults. Pound for pound they drink more water, eat more food, and breathe more air. Children have greater contact with the ground, and more hand-to-mouth behaviors. Rapid growth and development makes children *more vulnerable & biologically sensitive* to toxic insults at *lower levels* of exposure, and *briefer intervals* of exposure. Not only do they absorb more toxins than adults, but more of toxins will pass into their developing brains. And children have immature liver detoxification capacities, further compounding their vulnerability. Some may have genetic mutations called SNP's that alter their liver detoxification capabilities, making them even more susceptible to low doses of environmental toxins and exposures. It is impossible to predict who will have trouble processing and eliminating these chemicals, but for this population, even very low doses of a purportedly innocuous chemical like Checkmate can have major health consequences.

2) Secondly, we already know that Checkmate contains chemicals associated with illness as well as untested chemicals released in microscopic plastic capsules, and that children became ill after spraying in Monterey and Santa Cruz. The state report released last week on the health complaints for last fall, though it was reported in the media as showing no link between the spraying and the illnesses, actually concludes that: "It is not possible for several reasons to conclusively determine whether or not there is a link between the reported symptoms and the aerial spraying."

The Office of Environmental Health Hazard Assessment, which released the report, did not contact any of those people who reported illnesses or their physicians, and discarded many of the complaints as incomplete rather than following up and investigating them. This report was not a scientific study of the complaints and does not reassure us in the medical community about the safety of the spray.

3) Finally, the rates of illness and verifiable contamination of our children from pesticides and other similar environmental toxins are alarming and are associated with both short and long-term health consequences. And our understanding of the safe threshold of various toxins has changed dramatically over time; we now know that that lower and lower doses can cause harm, and that even low doses of what were previously considered safe can have tremendous impacts on our health and well-being.

Our kids are suffering from an alarming number of degenerative diseases at younger and younger ages. In California, nearly 1 in 5 children will have asthma at some point in their lives. Many read the reports last year that 1 in 150 children now are on the autism spectrum and this number is higher in California. Dr. Julie Gerberding, director of the Centers for Disease Control and Prevention, has recently upgraded autism to "an urgent health threat." 1 in 6 children have some sort of neurodevelopmental delay. Hypospadias, a male genital birth defect, is increasing by 3-4% each year.

Several illnesses can be linked directly to exposure to environmental toxins, including asthma, autoimmune illness, genital defects, and autism. And the rates of chronic illnesses in children are disturbingly on the rise. We know children became sick following the spraying last fall, including one 12-month boy who nearly died from respiratory arrest and experienced a subsequent attack some weeks later. That boy was fortunate to receive prompt, excellent medical care. Children without health insurance in poor areas in our cities may not be so lucky. A public health system that is already severely strained in most counties will suffer from this increased burden. And the children in my practice, already suffering from asthma and other chronic illnesses, will be even more vulnerable to the effects of this airborne spray.

The vast majority of chemicals produced have no data on neurodevelopmental toxicity for our kids. Checkmate has not been tested for its longterm neurodevelopmental effects. And we have no idea how each of Checkmate's ingredients interact with each other, or how Checkmate interacts synergistically

overall with all of our other environmental exposures. A study released in 2006 found that children with autism in the San Francisco Bay Area were twice as likely to be born in areas with higher estimated levels of toxic air pollutants. The Collaborative on Health and the Environment released a Scientific Consensus Statement stating “The scientific evidence we have reviewed indicates environmental contaminants are an important cause of learning and developmental disabilities. The proportion of environmentally induced LDDs is a question of profound human, scientific and public policy significance. Existing animal and human data suggest that a greater proportion is environmentally influenced than has yet been generally realized or than can be demonstrated with scientific certainty... Despite some uncertainty, there is sufficient knowledge to take preventive action to reduce fetal and childhood exposures to environmental contaminants. Given the serious consequences... a precautionary approach is warranted to protect the most vulnerable of our society.”

If there is even a plausible doubt that Checkmate could have harmful neurodevelopmental and health effects on our most vulnerable populations, then why would we even consider that risk to our children’s future?

Children have no voice, and rely on their parents and the wisdom of elected officials to be that voice for them. It is only just that parents be given the right to be fully informed and decide if the benefits of spraying outweigh the risks to their children. I urge you to vote for AB 2892 and ensure that children get that voice that they are currently lacking.

Thank you for protecting the health and well-being of our children and most vulnerable populations.