

many, many things in there that the American people would not approve of. And I fear that in the omnibus bill we're going to see a lot of those kinds of things.

Now, we don't know yet what's going to be in the omnibus bill, but in addition to a tremendous number of earmarks, we are probably going to see sanctions against Cuba weakened. We are probably going to see the Mexico City policy overturned. The House and Senate versions of the State Department appropriations bill permits grants and subsidies for organizations that perform or actively promote abortion as a method of family planning, overturning the Bush administration's Mexico City policy. We don't need to be doing that. The American people do not want us to take their hard-earned money to fund abortions.

It is probably going to provide federally funded benefits for domestic partners. Before being stripped from the House-passed Financial Services general government appropriations bill, a provision would have allowed unmarried cohabiting couples in the District of Columbia to qualify for Federal benefits on the same basis as legally married couples. That provision could be brought back to life in the majority's omnibus legislation.

Ending an IRS private debt collection program, the majority spending bill could limit funding to implement the Internal Revenue Service's use of private collection firms to collect unpaid taxes. The private debt collection initiative is expected to collect \$1.3 billion in taxes owed to the government that would otherwise go uncollected.

Undermining regulatory reform, a provision in the House-passed Financial Services general government appropriations bill, again, H.R. 2829, would kill efforts to increase the quality, accountability, and transparency of the Federal Government's regulatory review process. It would result in a fox guarding the hen house approach to approving Federal rules and regulations.

We don't need an omnibus bill. We need to vote on these bills one at a time, Madam Speaker.

The SPEAKER pro tempore. Under a previous order of the House, the gentleman from Connecticut (Mr. LARSON) is recognized for 5 minutes.

(Mr. LARSON of Connecticut addressed the House. His remarks will appear hereafter in the Extensions of Remarks.)

#### BLOOD LEVELS OF MERCURY ARE RELATED TO DIAGNOSIS OF AUTISM

The SPEAKER pro tempore. Under a previous order of the House, the gentleman from Indiana (Mr. BURTON) is recognized for 5 minutes.

Mr. BURTON of Indiana. Madam Speaker, it's late at night here in the

Capitol, and most of my colleagues are in their offices or have gone home. But I want to talk about an issue that's very, very important that we've been talking about now for the last 8 years.

I was chairman of the Government Reform Committee for 6 years, and during that time, my grandson became autistic; and we checked to find out what was the cause, trying to find out, because my daughter and her husband were just extremely upset about it, as we were as grandparents. And we found that he had received nine shots in one day, seven of which had a product called thimerosal, a preservative, in it. And the thimerosal was 50 percent ethylmercury. And so I decided to have hearings to try to find out if the ethylmercury in those vaccines had anything to do with the autistic problem my grandson had. And we found, by having many, many hearings over a 4-year period, we found that scientists from all over the world and leading doctors and educators here that work with autistic children, that the mercury in the vaccines did contribute to the autistic epidemic that we had.

We used to have one in 10,000 children that were diagnosed as being autistic. One in 10,000. Today the Centers for Disease Control will tell you it's one out of 150. It's an absolute epidemic in this country. And we have been fighting and fighting and fighting to make sure that those families who have been damaged and those children who have been damaged by autism get some kind of compensation. And that's why, and I think in 1986 we passed what was called the Vaccine Injury Compensation Fund, and it took some of the money from the pharmaceutical companies when they sold their vaccine products to put into this fund to take care of people who are damaged by vaccines. And one of the reasons we did that was because of the issue of autism, although at that time I didn't know much about it.

In any event, the Vaccine Injury Compensation Fund has about \$3 billion in it, and the people who's children have been adversely affected by mercury and have autism have not been able to get anything out of that. They have to go through a process and see a special master, and he has to judge whether or not the information that he has and the information they have lead them to believe that the mercury in the vaccines caused autism. And so far the special masters have not been able to ascertain, according to them, that the mercury in the vaccines does cause autism.

Well, last week, 2 years ago, let's see, 4 years ago there was a report, 2004, that said that there was definitely no connection between the mercury and the vaccinations and the children getting autism. Well, this past November, just last month, two doctors, Dr. Catherine DeSoto and Dr. Robert T. Hiltan, both very renowned doctors across this country, they have Ph.D.s in medicine, they wrote an article in the Journal of

Child Neurology. And you can't discount this. What they're saying is fact. I want to read to you the summary of what they said. They said: "The question of what is leading to the apparent increase in autism is of great importance. Like the link between aspirin and heart attack, even a small effect can have a major health implication. If there is any link between autism and mercury, it is absolutely crucial that the first reports of the question are not falsely stated and that no link occurs."

Now, get this: "We have reanalyzed the data set forth originally reported in 2004 and have found that the original P value was in error and that a significant relation does exist between the blood levels of mercury and diagnosis of an autism spectrum disorder. Moreover, the hair sample analysis results offer some support for the idea that persons with autism may be less efficient and more variable at eliminating mercury from the blood."

The fact of the matter is the mercury in the vaccines has autism. It's not the only cause of autism. But now we have scientific evidence by two leading doctors in the Journal of Child Neurology that says without doubt, the mercury in the vaccines does cause autism, is a major contributing factor.

Well, I've written, contacted Congressman KUCINICH, who's chairman of the subcommittee that deals with this in the Capitol, and I've also contacted the special masters that decide these cases and have urged them to re-evaluate all of these cases where people who have autistic children have found that the mercury in the vaccines may have been a major cause.

Now we know that it is a cause of autism, and those people who have suffered, and those kids who have suffered need to be compensated out of the Vaccine Injury Compensation Fund.

So I'd like to say to my colleagues, I hope you will join me in making sure that the information I just read gets out to everybody. These kids are going to live to be 50, 60, 70 years old, and unless there's some help for them, they're going to be a real burden on the taxpayers and on society. We have an obligation to make sure they're taken care of.

I hope all of my colleagues will read this statement tonight and help us to change the attitude of our health agencies and the special masters dealing with this problem.

In November 2007, the well-respected scientific journal, the Journal of Child Neurology, published an article authored by Drs. M. Catherine DeSoto and Robert T. Hiltan (PhDs), detailing their findings on the relationship between mercury and autism spectrum disorders. The article was entitled "Blood Levels of Mercury are Related to Diagnosis of Autism: A Reanalysis of an Important Data Set."

To summarize the article, Drs. DeSoto and Hiltan reanalyzed a data set the subject of a 2004 study that found no relationship between mercury and autism. By reexamining the data set, Drs. DeSoto and Hiltan determined that the conclusions of the 2004 study were wrong,

and that a relation does exist between the blood levels of mercury and diagnosis of an autism spectrum disorder.

As Drs. DeSoto and Hiltan noted in their article, there has been a marked increase in the diagnosis of autism in this country over the last 20 years. In fact we have gone from an autism rate of 1 in 10,000 to 1 in 150. So, answering the question of what is (and is not) a possible contributing cause of autism is crucial, not only to the millions of American families currently affected by autism but to future generations.

We simply cannot dismiss or downplay scientific research, which has the potential to unlock the mysteries surrounding what is causing our Nation's autism crisis. We owe it to the thousands of families living with autism to follow the science wherever it may lead.

That's why in late November, I wrote to the Chairman of the House Subcommittee on Domestic Policy, Representative DENNIS KUCINICH; and the Special Masters assigned to the Congressionally-created Office of Vaccine Program within the U.S. Court of Federal Claims, alerting them to the findings in Drs. DeSoto and Hiltan's latest research.

Specifically, I asked the Special Masters to take Drs. DeSoto and Hiltan's latest findings into consideration as they carry out their mandate of managing and adjudicating childhood vaccine claims. I asked Chairman KUCINICH to hold a hearing on the environmental risks of mercury in childhood vaccines before the 110th Congress ends.

Given the high stakes involved, scientific reports discussing a connection between blood mercury levels and autism deserve serious consideration and review by the medical and scientific community.

During my tenure as Chairman of the House Committee on Government and Reform, I spent 6 years researching and hearing testimony from the autism advocacy and scientific communities about the autism epidemic sweeping our country. Over and over again, questions of causation, namely the use of thimerosal—the mercury-based vaccine preservative—in childhood vaccines were raised.

Here's what I learned:

A number of credible national and international scientists testified before the Committee that mercury in vaccines is a contributing factor in developing neurological disorders, including, but not limited to, modest declines in intelligent quotient, autism, and Alzheimer's disease. And the body of evidence to support that conclusion gets larger everyday.

Experience tells us that, as with any other epidemic, while there may be underlying genetic susceptibilities, there usually is also some type of environmental trigger as well—be it exposure to a virus, fungus, heavy metal, or pollutant. There has never, to the best of my knowledge, been a purely genetic epidemic.

Genetics alone cannot explain how we went from 1 in 10,000 children with autism spectrum disorders 20 years ago to 1 in 150 today. The increase happened far too quickly for a genetic shift.

As mercury is a known bio-accumulative neurotoxin, it is biologically plausible that it is a contributing factor to our Nation's autism epidemic.

Autism has no cure, and while it is a life-changing condition, it is not a life-threatening

disease. This means that the autistic children of today will be the autistic adults and autistic seniors, 20, 30, 50, even 70 years from now. Our Nation is ill prepared to deal with the complex educational, financial, housing, and health care challenges posed by a generation of autistic individuals.

My only grandson is autistic, so this is an issue that is very close to my heart; and for the last several years I have fought hard to raise awareness of this disease, and increase research into the causes of autism, as well as new treatments for those suffering with autism.

As a Nation, I believe, we have a collective responsibility to do everything we can to not only stop the further spread of this disease but to help the millions of children, adults and families afflicted with it.

#### JOURNAL OF CHILD NEUROLOGY

#### BLOOD LEVELS OF MERCURY ARE RELATED TO DIAGNOSIS OF AUTISM: A REANALYSIS OF AN IMPORTANT DATA SET

(By M. Catherine DeSoto, PhD, and Robert T. Hiltan, PhD)

The question of what is leading to the apparent increase in autism is of great importance. Like the link between aspirin and heart attack, even a small effect can have major health implications. If there is any link between autism and mercury, it is absolutely crucial that the first reports of the question are not falsely stating that no link occurs. We have reanalyzed the data set originally reported by Ip et al. in 2004 and have found that the original *p* value was in error and that a significant relation dose exist between the blood levels of mercury and diagnosis of an autism spectrum disorder. Moreover, the hair sample analysis results offer some support for the idea that persons with autism may be less efficient and more variable at eliminating mercury from the blood.

Keywords: autism; mercury; environmental health; neurotoxin; neurodevelopment; blood.

There is a marked increase in the diagnosis of autism. The question of what is (and is not) related to this increase is crucial to millions of persons affected by the disorder. This article reanalyzes an original data set regarding the relation between blood levels of mercury and diagnosis of an autism spectrum disorder (ASD) by Ip et al. based on our finding of discrepancies in the original article.<sup>1</sup>

A review of what is known about the neurotoxic effects of mercury is beyond the scope of this paper,<sup>2</sup> but the observable symptoms of acute mercury poisoning have been reported to match up with many of the problems observed in autism.<sup>4</sup> Furthermore, mercury poisoning has sometimes been presumptively diagnosed as autism of unknown etiology until the mercury poisoning has been uncovered.<sup>4</sup> Because there has been a several-fold increase in environmental mercury exposure, the hypothesis that the rise in autism could be related to an environmental increase in mercury levels is a reasonable one to pursue. Autism may result from a combination of genetic susceptibility (perhaps in the form of reduced ability to remove mercury or other neurotoxins from the system) and environmental exposure at key times in development.<sup>5,7</sup> This would mean a generalized increase in mercury levels would be expected to co-occur with a generalized increase in autism. But some people exposed to relatively high mercury would not be affected if, for example, their bodies were very efficient eliminators of such toxins. Only if an exposed infant or fetus also had a genetic susceptibility that makes one less able to re-

move mercury (or other heavy metals) would normal levels of mercury exposure lead to problems. Alternatively, it could be that genes that help detoxify get switched on and start to express themselves a little later than normal in those genetically predisposed to autism; or perhaps, autism results from some combination of these theories.

Nevertheless, if mercury does play any causal role in facilitating a diagnosis of autism, there would likely be at least some relation between high mercury measured in the blood and symptoms of autism even if ability to metabolize mediates the relationship between exposure and neural toxicity. This is because even if exposure is identical, those who remove mercury less effectively should still have higher levels in the blood. Interestingly, results of hair samples could be expected to be somewhat mixed. The level of mercury in hair may be better understood as an indication of how much mercury has been removed by the body as opposed to the level in the body.<sup>6</sup> If people are approximately equal in their ability to remove circulating mercury from the bloodstream, then these 2 indicators should match up closely, but if a person's ability to excrete is low, their hair samples might not be elevated even when their blood levels are high.

Fido and Al-Saad found that mercury levels in hair samples were higher in children diagnosed with autism.<sup>8</sup> These children were aged 4 to 7. In contrast, Kern et al. reported that mercury hair levels were not significantly different, but were lower at a marginally significant level.<sup>9</sup> Kern et al. used younger children, ages 1 to 6. Holmes et al. performed the most direct test of the hypothesis that autistic children may be deficient in terms of ability to remove mercury from circulation.<sup>6</sup> This study estimated mercury exposure of the mothers via a mercury exposure survey questionnaire. They then analyzed the first haircuts of the autistic children and a group of controls (the first haircuts would reflect mercury excretion in utero and very early life). In the autistic group, severity of autism was inversely related to hair mercury levels. This means that the more severe autistic cases actually had less excretion of mercury. Furthermore, among the normal children, hair levels of mercury were correlated to the mother's mercury exposure (as would of course be expected). But among the autistic children, there was no linear relation between the mother's mercury exposure and excretion of mercury in the hair. As the authors state, this pattern of results is easily understood if one considers "detoxification capacity of a subset of infants,"<sup>6</sup> such that the bodies of those diagnosed with autism appeared to be less able to excrete and/or metabolize the mercury they were exposed to.

As the rise in autism is relatively recent, it is not surprising that research into the etiology has not kept pace. Indeed, there are few published articles that consider blood levels of children with mercury that utilize a control group; a psycInfo search using the words "autism," "mercury," and "blood" yields only one hit.<sup>1</sup> Given the high stakes involved, it is crucial that early reports of the connection between blood mercury levels and autism not be misstated. Even a small effect size would be of great theoretical and practical consequence.

In 2004, Ip et al. reported that no relationship existed between mercury blood levels and diagnosis of autistic spectrum disorder among a group of children with an average age of approximately 7 years. While attempting to estimate the effect size based on the Ip et al. statistics, we realized that the numbers reported by Ip et al. could not be correct. The means and standard deviations reported in the 2004 article yielded an easily

significant *t* value (autism mean = 19.53 nmol/L, SD = 5.6, *n* = 82; control mean = 17.68 nmol/L, SD = 2.48, *n* = 55 gives a *t* = 2.283, two-tailed *P* = .024 or one-tailed *P* = .012). Ip et al. wrote that the *P* value was “(*P*) = .15,”<sup>10(p432)</sup> and that their data indicate “there is no causal relationship between mercury and as an environmental neurotoxin and autism.”<sup>11</sup> After the error was brought to the attention of the authors, a new analysis was conducted by the original authors and they found the original *t* test to be in error and the *P* value to be a mistake (refer to Erratum, p. 1324). Based on their corrected analysis, the authors report the revised *P* value for their *t* test to actually be *P* = .056. We disagree on several grounds that these data indicate no significant effect exists, and report on a completely new reanalysis of the original data set.

#### METHODS

Outliers were removed prior to statistical analysis. An outlier is defined as a score that is “substantially greater or less than the values obtained from any other individual.”<sup>10</sup> Outliers have an unduly large influence on the outcome of a statistical test. What actually qualifies as an outlier differs depending on the research question and the statistician analyzing the results; however, values greater than 3 standard deviations either above or below the mean generally qualify as extreme cases.<sup>11</sup> Within the Ip et al. data, there were 2 such values that were not removed prior to our reanalysis. These 2 values were more than 3 standard deviations above the mean, and both of these values were far from any other score. (Other scores were within 3 points of the next individual; these 2 scores were each 15 or more points away from any other score in the distribution.) To avoid the appearance that these 2 outliers were removed to influence the statistical outcome as opposed to objective criteria for cleaning a data set, it should be noted that the biggest outlier of the 2 was an unusually high blood mercury level of 98, which was in the autistic group. To be clear—if anything, removal of the outliers resulted in a more conservative test as it actually decreased the mean difference between the 2 groups.

#### RESULTS

Logistic regression was performed using blood mercury level as the predictor and the autistic/control group as the criterion. Results of this reanalysis indicate that blood mercury level can be used to predict autism diagnosis. Data included: *r* = .20, *r*<sup>2</sup> = .04, *F*(1, 133) = 5.76, *P* = .017. This finding indicates that there is a statistically significant relationship between mercury levels in the blood and diagnosis of an autism spectrum disorder.

There was no difference in the mean hair levels where *t*(135) = .24 and one-tailed *P* = .40; this is essentially the same result reported in the original article. However, given that hair levels would normally be expected to be highly correlated to blood levels, it might be surprising that blood levels could predict an autism spectrum diagnosis, but that hair mercury levels could not. Indeed, hair and mercury levels for the full sample were correlated (*r* = .86, *P* < .001) indicating that about 75% of the variance in hair levels was accounted for by the mercury level in the blood. To us, the question turned to what the other 25% of the variance might be due, and whether the assumptions of the *t* test were violated. Although not the central focus of this report, these results could certainly help to inform future researchers of the nature of the relation between autism and mercury, and we include this information for completeness.

Exploratory Analysis. If one hypothesizes that persons with autism are less able to ex-

crete mercury, especially when their blood levels get in the higher range, one might expect that the correlation between blood and hair levels would break down at the higher blood levels among the autism spectrum group (a type of heteroscedasticity).<sup>5</sup> Another way of looking at it, the relationship between blood level and hair excretion may be different for persons with autism than those without autism. Levine's test of equality of variance indicated the variance in hair mercury was not evenly distributed between the autism and control groups (*F* = 5.98, *P* = .017). We calculated the correlation for persons whose circulating levels of mercury were in the top quartile separately for the autism and control groups. The correlation between blood and hair levels of mercury was *r* = .91 for the control group (accounting for 84% of the variance). For the autistic group, the correlation was *r* = .73, meaning only about 55% of the variance in the hair mercury levels was attributable to the blood mercury level differences.

To check the hypothesis that hair excretion was overall lower than would otherwise be predicted based on a certain blood level in the autistic group, a best fit regression line was calculated (*y* = 10.3, *x* = -2.48) indicating that for each unit increase in hair level, blood level increased by 10.3 units. Attest on the residuals showed that autistic participants were significantly more likely to have lower hair mercury levels than would be predicted as a function of their blood levels, *t*(133) = -2.92, *P* < .005; see Figure 1). It should also be noted that the presence of unequal variances or nonrandom residuals (in this case, autistic persons are both more likely to have greater variability at high levels of circulating mercury and a lower hair value for a given blood level) are both violations of important assumptions of the *t* test; a *t* test of hair mercury is therefore probably not a valid means to predict autism diagnosis as a function of mercury exposure. We performed an analysis of covariance (ANCOVA) with autism diagnosis as the independent variable and hair mercury level as the dependent predictor using blood levels as a covariate. Results indicate that hair level may be related to diagnosis of autism, not as a predictor in terms of absolute value, but such that for equivalent circulating levels of mercury in the body, those with ASD excreted less than normal such that *F*(1,134) = 3.9 and *P* = .05. To sum, the relationship between blood levels of mercury and mercury excreted in the hair is reduced for those with autism compared with nonautistic persons; furthermore, the difference between autistic and nonautistic persons is most pronounced at high levels of mercury.

#### DISCUSSION

In statistics, obtaining a probability value of *P* < .05 indicates that the obtained test statistic (based on one's sample) is extremely unlikely (less than 5% chance) to have been obtained by chance alone. By convention, this value is usually set at .05 (as a balance of type 1 and type 2 errors); however, this value is, in fact, arbitrary and statistical probability tables for hypothesis testing always include a range of probability values—not only probability at the .05 level. Given that this is the first direct test of this hypothesis and considering the potential importance of finding a relation between mercury blood levels and autism, it is just as important to avoid a false negative as a false positive. As the original authors have now currently calculated, the obtained difference suggests that there is probably a real difference (specifically that the chance that a real effect exists is about 94%, or, conversely, that the chance null effect is true is less than 6%, which misses the conventional

.05—or 5%—mark of statistical significance). Given the close value to conventional significance, most researchers would not call this a firm rejection of the hypothesis, but might say it was marginally significant. Most researchers facing a *P* value of .056 would not want to categorically state that results “indicate that there is no causal relation between mercury level . . . and autism.”<sup>11</sup> It concerns us that the original authors would want to let this conclusion stand in light of the new *P* value (which differs markedly from the .15 previously reported in 2004).

Another issue to consider is the question of a one-tailed or a two-tailed hypothesis test. Usually, researchers use a two-tailed test, which tests if there is a “difference” between 2 groups. However, when the literature leads a researcher to propose a specific direction of the difference, a one-tailed test is called for. “Often a researcher begins an experiment with a specific prediction about the treatment effect. For example, a special training program is expected to increase student performance, or alcohol consumption is expected to slow reaction times . . . The result is a directional test, or what is commonly called a one-tailed test.”<sup>10</sup>

Whether to use a one-tailed test or a two-tailed test can be decided based on considering what would happen if the results ended up in the opposite direction of what one suspects. In this case, it would mean that the blood mercury levels were lower in the autistic group. Would this support the original hypothesis? (No!) However, if this were to happen, that is, if the autistic group were significantly lower in their blood mercury levels than the normal group, the researchers would find themselves in the incongruous position of having to accept their hypothesis that autism is related to elevated levels of mercury in the blood! The key point here is that their hypothesis was directional, and a one-tailed test should have been used. In this case, the just missed significance of their new analysis using a two-tailed *t*-test (*P* = .056) would have reached a conventional level of statistical significance (with *P* < .03).

Although the statistics can be tedious, the bottom line is that only by an apparent error in the original data analysis was the original lack of effect found. The authors' revised calculation (*t* test) still has problems (two-tailed test for a directional hypothesis, not removing clear outliers). And finally, the willingness to characterize a *t* test with a .056 level of statistical significance as no effect is questionable, especially in this particular case.

Of utmost importance (which outweighs the discomfort of writing about an error made by colleagues whom we know are generally competent researchers) is that potential researchers who are trying to understand what is and is not behind the rise in autism are not misled by even the slightest misinformation. It is imperative that researchers, medical professionals, and the public at large have the full set of information. To put it in perspective, the connection between taking aspirin and prevention of heart attack has an effect size equal to .038 which represents an effect size approximately equal to what we find between circulating levels and ASD diagnosis in this age group.<sup>12</sup> Just as important is the fact that for those physicians in the aspirin group who did have a heart attack, the heart attack was less likely to be fatal. The effect size for this latter effect was .08 and did not represent a significant difference from the placebo group by traditional dichotomous significance testing.<sup>13</sup> Yet, this does not mean no effect exists or that the effect is not of practical importance. We would encourage all researchers to not only report whether a

test of mercury and autism reaches significance with the sample size used, but to report the exact statistic and also effect sizes to help future researchers resolve all the factors involved in the etiology of autism.

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The SPEAKER pro tempore. Under a previous order of the House, the gentleman from California (Ms. PELOSI) is recognized for 5 minutes.

(Ms. PELOSI addressed the House. Her remarks will appear hereafter in the Extensions of Remarks.)

#### PUBLICATION OF THE RULES OF THE COMMITTEE ON ENERGY AND COMMERCE, 110TH CONGRESS

The SPEAKER pro tempore. Under a previous order of the House, the gentleman from Michigan (Mr. DINGELL) is recognized for 5 minutes.

Mr. DINGELL. Madam Speaker, in accordance with clause 2(a) of rule XI of the Rules of the House of Representatives, I respectfully submit the rules of the Committee on Energy and Commerce for printing in the CONGRESSIONAL RECORD. The Committee on Energy and Commerce adopted these rules by a voice vote, a quorum being present, at our organizational meeting on January 10, 2007.

#### RULES FOR THE COMMITTEE ON ENERGY AND COMMERCE

#### U.S. HOUSE OF REPRESENTATIVES 110TH CONGRESS

(Adopted January 10, 2007)

#### RULE 1.—GENERAL PROVISIONS

(a) Rules of the Committee.—The Rules of the House are the rules of the Committee on Energy and Commerce (hereinafter the "Committee") and its subcommittees so far as is applicable, except that a motion to recess from day to day, and a motion to dispense with the first reading (in full) of a bill or resolution, if printed copies are available, is nondebatable and privileged in the Committee and its subcommittees.

(b) Rules of the Subcommittees.—Each subcommittee of the Committee is part of the Committee and is subject to the authority and direction of the Committee and to its rules so far as applicable. Written rules adopted by the Committee, not inconsistent with the Rules of the House, shall be binding on each subcommittee of the Committee.

#### RULE 2.—TIME AND PLACE OF MEETINGS

(a) Regular Meeting Days.—The Committee shall meet on the fourth Tuesday of each month at 10 a.m., for the consideration of bills, resolutions, and other business, if the House is in session on that day. If the House is not in session on that day and the Committee has not met during such month, the Committee shall meet at the earliest practicable opportunity when the House is again in session. The chairman of the Committee may, at his discretion, cancel, delay, or defer any meeting required under this section, after consultation with the ranking minority member.

(b) Additional Meetings.—The chairman may call and convene, as he considers necessary, additional meetings of the Committee for the consideration of any bill or resolution pending before the Committee or for the conduct of other Committee business. The Committee shall meet for such purposes pursuant to that call of the chairman.

(c) Vice Chairmen; Presiding Member.—The chairman shall designate a member of the majority party to serve as vice chairman of the Committee, and shall designate a majority member of each subcommittee to serve as vice chairman of each subcommittee. The vice chairman of the Committee or subcommittee, as the case may be, shall preside at any meeting or hearing during the temporary absence of the chairman. If the chairman and vice chairman of the Committee or subcommittee are not present at any meeting or hearing, the ranking member of the majority party who is present shall preside at the meeting or hearing.

(d) Open Meetings and Hearings.—Except as provided by the Rules of the House, each meeting of the Committee or any of its subcommittees for the transaction of business, including the markup of legislation, and each hearing, shall be open to the public including to radio, television and still photography coverage, consistent with the provisions of rule XI of the Rules of the House.

#### RULE 3.—AGENDA

The agenda for each Committee or subcommittee meeting (other than a hearing), setting out the date, time, place, and all items of business to be considered, shall be provided to each member of the Committee at least 36 hours in advance of such meeting.

#### RULE 4.—PROCEDURE

(a)(1) Hearings.—The date, time, place, and subject matter of any hearing of the Committee or any of its subcommittees shall be announced at least one week in advance of the commencement of such hearing, unless the Committee or subcommittee determines

in accordance with clause 2(g)(3) of rule XI of the Rules of the House that there is good cause to begin the hearing sooner.

(2)(A) Meetings.—The date, time, place, and subject matter of any meeting (other than a hearing) scheduled on a Tuesday, Wednesday, or Thursday when the House will be in session, shall be announced at least 36 hours (exclusive of Saturdays, Sundays, and legal holidays except when the House is in session on such days) in advance of the commencement of such meeting.

(3) Motions.—Pursuant to clause 1(a)(2) of rule XI of the Rules of the House, privileged motions to recess from day to day, or recess subject to the call of the Chair (within 24 hours), and to dispense with the first reading (in full) of a bill or resolution if printed copies are available shall be decided without debate.

(B) Other Meetings.—The date, time, place, and subject matter of a meeting (other than a hearing or a meeting to which subparagraph (A) applies) shall be announced at least 72 hours in advance of the commencement of such meeting.

(b)(1) Requirements for Testimony.—Each witness who is to appear before the Committee or a subcommittee shall file with the clerk of the Committee, at least two working days in advance of his or her appearance, sufficient copies, as determined by the chairman of the Committee or a subcommittee, of a written statement of his or her proposed testimony to provide to members and staff of the Committee or subcommittee, the news media, and the general public. Each witness shall, to the greatest extent practicable, also provide a copy of such written testimony in an electronic format prescribed by the chairman. Each witness shall limit his or her oral presentation to a brief summary of the argument. The chairman of the Committee or of a subcommittee, or the presiding member, may waive the requirements of this paragraph or any part thereof.

(2) Additional Requirements for Testimony.—To the greatest extent practicable, the written testimony of each witness appearing in a non-governmental capacity shall include a curriculum vitae and a disclosure of the amount and source (by agency and program) of any federal grant (or subgrant thereof) or contract (or subcontract thereof) received during the current fiscal year or either of the two preceding fiscal years by the witness or by an entity represented by the witness.

(c)(1) Questioning Witnesses.—The right to interrogate the witnesses before the Committee or any of its subcommittees shall alternate between majority and minority members. Each member shall be limited to 5 minutes in the interrogation of witnesses until such time as each member who so desires has had an opportunity to question witnesses. No member shall be recognized for a second period of 5 minutes to interrogate a witness until each member of the Committee present has been recognized once for that purpose. While the Committee or subcommittee is operating under the 5-minute rule for the interrogation of witnesses, the chairman shall recognize in order of appearance members who were not present when the meeting was called to order after all members who were present when the meeting was called to order have been recognized in the order of seniority on the Committee or subcommittee, as the case may be.

(2) Questions for the Record.—Each member may submit to the Chairman of the Committee or the subcommittee additional questions for the record, to be answered by the witnesses who have appeared. Each member shall provide a copy of the questions in an electronic format to the clerk of the Committee no later than ten business days following a hearing. The Chairman shall transmit all questions received from members of