| | FFES | | Funding | | |
|---|------|------------|---------|----------|----------|
| Project Title | data | Time (yrs) | year | Cost | Status |
| Exposure strategy (may include FFES II or more) | | 3 | 2006 | Lots | |
| FOIA (tabled until Monsanto and Syngenta exhausted) | | 3 | | | Tabled |
| Evaluating spot vs. composite in the FFES | Y | 1 | | | |
| Probablistic models comparing 2,4-D and chlorpyrifos in FFES - | | | | | |
| exposure models from Risk Assessment vs. the AHS agorithm | Y | 1 | | | |
| | | | | | |
| Look at chemical specific exposure comparing to Arbuckle paper. | Y | 1 | | | |
| Nuber - Predict post-application levels from the baseline (all 3) | Y | 1 | 2005 | \$0 | |
| Creatine paper with Bob Kreiger (CDC doing) | Y | 1 | | | |
| Calibration of Self-Reported Exposure Metrics using Whole Body | | | | | |
| Dosimetry and Bio-monitoring Data | | 1 | | | |
| Define the mixtures | | 1 | | | |
| Tim Lash - Potential exposure misclassification in epidemiologic | | | | | |
| studies of pesticides | | 1 | 2005 | \$12,000 | approved |
| Birth cohort study of associations between cancer mortality and | | | | | |
| pesticide use | | 1 | | | |
| Tim Lash - Impact of systematic error in agricultural epidemiologic | | | | | |
| studies | | 1 | 2005 | \$12,000 | approved |
| Statistical Error Rate in the Agricultural Health Study | | 1 | | | |
| Meta-analysis of pesticide exposure and the risk of childhood brain | | | | | |
| tumors | | 1 | | | |
| Implications of environmental fate and biologic half-life of pesticides | | | | | |
| on design of human health studies | | 1 | | | |
| Use of Bradford Hill Criteria to Evaluate the Association between | | | | | |
| Pesticide Use and Disease | | 1 | | | |
| Summary paper in ag journal emphasizing public health | | | | | |
| implications (Leonard/Burns/Ott/Reape)) | | 1 | 2005 | \$0 | Agreed |
| Describe intra-subject variablity of exposure to characterized a | | | | | |
| "day" | | 1 | | | |
| Evaluate reliability data | | 1 | | | |
| AHS reliability on questionnaire (O'Rourke work) | | 1 | | | |
| AHS reliability on questionnaire (Blair data) | | 1 | | | |
| Low dose vs. no dose as control group | | 1 | | | |
| Set the record straight on the toxicology data in weight of evidence | | | | | |
| of publications thus far (Farmer/Tobia/Nuber) | | 1 | 2005 | \$0 | Agreed |

| Multiple comparison 1 | |
|---|--|
| Collect recticide records from vectors in the rest to evolute validity. | |
| Collect pesticide records from years in the past to evaluate validity | |
| of exposure questionnaires 1 | |

Project Title Votes 5 Calibration of Self-Reported Exposure Metrics using Whole Body Dosimetry and Bio-monitoring Data 5 Define the mixtures Potential exposure misclassification in epidemiologic studies of pesticides Δ Farm Family Exposure Study II Migrant Farm Worker Children: II. Comparison of Work Practices and Behaviors of Migrant Farmers' Children to Children in the FFES Birth cohort study of associations between cancer mortality and pesticide use 4 3 Tim Lash - Impact of systematic error in agricultural epidemiologic studies 3 Statistical Error Rate in the Agricultural Health Study Migrant Farm Worker Children: I. Utilizing Urinary Biomarkers for Pesticide Exposure Associated with Application and Post-3 application field activity. 2 Latin America FFES Meta-analysis of pesticide exposure and the risk of childhood brain tumors 2 2 Implications of environmental fate and biologic half-life of pesticides on design of human health studies Use of Bradford Hill Criteria to Evaluate the Association between Pesticide Use and Disease Summary paper in ag journal emphasizing public health implications Describe intra-subject variablity of exposure to characterized a "day" Evaluating spot vs. composite in the FFES Tim Lash - potential exposure misclassification in ag studies Probablistic models comparing 2,4-D and chlorpyrifos in FFES - exposure models from Risk Assessment vs. the AHS agorithm Look at chemical specific exposure comparing to Arbuckle paper. Creatine paper with Bob Kreiger (CDC doing) Evaluate reliability data Children's exposure study AHS reliability on questionnaire (O'Rourke work) AHS reliability on questionnaire (Blair data) Low dose vs. no dose as control group Set the record straight on the toxicology data in weight of evidence of publications thus far FOIA

QUESTIONS AND COMMENTS FOR THE ANNUAL AHS SAP

- 1. The toxicology discussions seem to be based on incomplete or old non guideline studies. Why don't the publications to date reference the available data from OPP? The toxicology interpretation doesn't seem to reflect evaluation consistent with EPA's registrations. What is your policy about citing non-GLP studies vs. GLP studies? (Abe)
- 2. The glyphosate paper didn't cite the FFES or other glyphosate exposure papers that suggested that farmers have very low exposure. Why weren't any of these exposure data considered in the discussion? (Donna)
- 3. We applaud the posting of the supplementary tables on the AHS website for the breast cancer paper. Can we see more of this? The paper listed all pesticides evaluated, not just those with positive results. (Carol)
- 4. What does the body of literature to date mean to the farming community? How is a farmer supposed to process and act from these data? (Robin) What is the message to all farmers? How can farmers go into a preventive mode? What are your public health recommendations? How is this better than Prop 65? (Robin)
- 5. Is there any pesticide that you have evaluated to date that has been demonstrated to be safe? Are these data available in your publications? (Can you show safety?) How do we as industry evaluate our products so that we can better predict the human health risks? (Jerry or Marty or Angelina)

Minutes of CLA Epidemiology Work Group Teleconference: November 30, 2004 Action Items in Bold

| Attendees: | Carol Burns | Charles Breckenridge | |
|------------|-----------------|----------------------|--|
| | Jerry Ott | Dave Nuber | |
| | Donna Farmer | Robin Leonard | |
| | Angelina Duggan | Marty Reape | |

Approval of minutes of Philadelphia meeting will be done via email by December 10..

AHS Publications

Biologic plausibility was addressed in AHS lung cancer paper—thanks to John Acquavella. However, not all the studies used were represented accurately. Donna is writing a letter to the editor in response to paper. The suggestion was made that perhaps two letters could be submitted—one from the epidemiology point of view and one with a broader "relevance issue" regarding some of the toxicology studies used.

Abstract on mortality study: Angelina to send paper to listserve.

CLA is planning strategy to draw attention to the inadequacy of data review and analysis being published by AHS.

FOIA Request

There was discussion around whether the request would be from CLA or EWG, or individual companies. Some concern expressed over chemical-specific data being obtained by CLA. Does release of data include possibility of recipient sharing data with others? Charles thinks that no restrictions are made on sharing data.

A request for generic data would also be useful. A lot of work has to be done to prepare a data request to serve specific issues. To be most effective, we would need information on the approximately 43 compounds for which no effect has been found. Committee would need a plan describing how we would use raw data.

Discussion concerning the value of systematically examining the different exclusion criteria and analysis methodologies used across different AHS papers was held. This could be a useful exercise, and would not require additional data.

Different audiences require different level of technical detail. Professional colleagues/literature better served by papers than letters to the editor. Need to convey the whole picture. Congressional audience would require different approach; work with communications people. Appropriate for EHHIT to consider bringing the multidisciplinary approach to this problem. Law Committee may need technical input on FOIA issue.

Jerry to write up discussion around pros/cons of FOIA. Will focus on value-added from EWG subgroup. Jerry thinks just asking for computer analyses may be adequate. Biological plausibility extremely important—medical, epi, tox, exposure. AHS has no measure of exposure. AHS analyses use grouped, recalled usage information. Need to see and understand negative data from the AHS. AHS advisory committee asked AHS to discuss negative findings. EPA requires more data from toxicology studies than it does for epidemiology. There may be an opportunity to pursue this with EPA

ALL: At the next meeting, prioritize projects and publications to maximize impact. FOIA will require a lot of sweat equity from EWG. Need one-year and 3-year plans. Decisions must be made regarding EWG work versus contracted work.

Ongoing company-specific work

C. Breckenridge doing simulation work on non-Hodgkin's and multiple myeloma. 57,000 records from FOIA on atrazine, but this project is modeling disease risk factors (not concentrating on chemical) to see if they've been modeled correctly by AHS. Paper to be submitted in the spring. AIDS had huge impact on NHL rates; this can be seen in Iowa data.

Proposals

Tim Lash (Boston Univ.)—proposals Misclassification and systematic bias. May require additional data. No funds available for 2004. Angelina has \$50,000 to serve 5 groups in 2005.

Donna will ask Lash for detailed cost basis.

Encourage committee to approach Board members. Committee should develop strategy for responding to AHS, and ask for funding to implement.

Charles and Jerry to develop format for information request, to be discussed at next meeting in Washington, on January 28, 2005. Teleconference first week in January. AHS annual meeting often in February; EWG should consider asking for time on the agenda to express concerns.

Respectfully submitted, Robin C. Leonard