We reported the results of the animal studies in mouse first, and in mouse, chick, and drosophila later.

Amphetamine produced malformations in all three models. But this doesn't mean it produces malformations in humans.

The fact that three phyla were affected, and that two strains of one species were also affected was suggestive of the teratogenic potential of the drug.

An unexpected finding that greatly influenced our thinking about the etiology of congenital heart diseases in general was that in one species of mouse we caused ventricular septal defect and in another species we caused atrial septal defect.

We were unable to produce transposition.

It appeared that amphetamines brought out the malformation to which the strain was predisposed. And it was this observation that led us to the belief that there must be a predisposition—a malfunction and a predisposition—to react adversely to an agent which must be given at the vulnerable period of development as the three essentials of teratogenesis.

The first retrospective study of congenital heart patients was inconclusive. We did not find a statistical difference at the 0.05 level. After publishing these findings we redesigned our protocol, admitted younger patients into the study—to reduce material memory bias—and tightened our verification procedures.

We tightened our verification procedures and made absolutely sure that there was adequate evidence from more than one source that the person did indeed have the drug at the time she was supposed to have taken it.

After 2 more years we analyzed our new data, found a statistically significant difference between the congenital heart and control groups, and were forced to retract our previous report that there was no significant amphetamine influence in congenital heart disease.

Thus two studies by the same investigators led to opposite conclusions. We believe the second study to be the more reliable one.

It has already been pointed out that retrospective studies are less conclusive than prospective ones, so we put our eggs in the basket of a large obstetrical practice that used amphetamines liberally.

I carefully avoided telling the obstetricians which of the many drugs on our questionnaire we were most interested in, but a medical student working with me spilled the beans and the obstetricians immediately stopped using amphetamines and lost interest in our project.

By the way, that was at a time when malpractice insurance was $60 per year. You can imagine what a threat such studies are now. We did publish a small prospective study of 240 patients, eight of whom delivered infants with malformations, three of which were associated with maternal exposure to amphetamines.

The loss of a prospective study of sufficient size was probably of positive benefit to the patients, but it has obviated our reaching the confident conclusions we desired.

Since I have brought up the subject of malpractice suits, I would like to call attention to a trend which I consider to be indefensible.

From the number of communications I receive from legal firms all over the country regarding the role of maternal drug exposure in birth defects, it appears that some of our legal colleagues believe that the