I see that I am the first discussion leader who is not an expert and therefore I would like to introduce the discussion on Risk Assessment for carcinogenicity in general terms.

Life is a hazardous activity because there is an (almost) certainty for any newborn baby that eventually he or she will die. In Western countries, cancer is the cause of death for roughly 25% of the general population, so I put the risk of cancer to 1/4. This means that it is a great risk for everybody.

Although this risk applies to the general population, it does not apply equally to parts of the population, e.g., it did not apply to one particular group of distillers of B-naphthylamine who all developed bladder cancer. Although this is an extreme example, it does illustrate that occupational cancer can be a great risk also, and therefore is of the greatest importance in its own right even if it disappears as a noticeable risk after dilution over the general population. However, during this discussion, I would like to concentrate on population risk. Is our primary aim indeed to bring down cancer as a percentage of total deaths? For this purpose, the fate of Seventh Day Adventists in contracting colon cancer may be illustrative (Fig. 1).

Apparently, the Seventh Day Adventists are "spared" the fate of colon cancer appreciably longer than the normal population. However, at the end, the percentage of Seventh Day Adventists dying of colon cancer is slightly higher than the percentage of the American popu-

lation. So perhaps a more practical primary aim should be to postpone cancer rather than to eradicate it (Table 1).

In order to start the discussion, I have projected some, deliberately provocative, statements on what we do not know. Being provocative means that I feel myself, like a tightrope walker: I believe that my statements are not too far from true at the actual state of the art. However, they deliberately show one side only of the picture and therefore they are intended to give an unbalanced perspective. I hope that the discussion will yield the balance to this perspective. The reason for stressing our areas of ignorance is to arrive at a better sense of direction of future research—because many present areas of ignorance are not eternal and can be covered by presently available research techniques.

The provocative statements are the following: 1) Risk assessment of one single chemical is because of the added problems of metabolism a larger problem than the entire effort on risk assessment of ionizing radiation. 2) Risk assessment of a chemical on the basis of one test only, even if that is a NCI cancer study, is impossible. 3) DNA-alkylation as a simple test for the presence or absence of carcinogenic activity is now untenable. 4) Mutagenic