CONCLUSIONS

The results presented in the dissertation reveal following conclusions:

1. The protein malnutrition which is common in third world countries, enhances susceptibility to cadmium intoxication. Thus, adequate nutrition may be recommended for persons occupationally exposed to cadmium.

2. The alcoholism leads to more accumulation of cadmium and enhances cadmium hepatotoxicity. The workers of cadmium based industries should refrain from abusive use of alcoholic drinks.

3. The dietary supplementation of copper and/or iron causes interaction with cadmium induced metabolic and essential trace element disturbances and possibly counteract cadmium intoxication.

4. The treatment with glibenclamide, a hypoglycemic agent reduces cadmium induced alterations in carbohydrate metabolism and essential metal imbalance. The glibenclamide potentiates the antidotal efficacy of calcium trisodium diethylenetriaminepentaacetate in cadmium intoxication.

5. The treatment with calcium trisodium diethylenetriaminepentaacetate, sodium-1,2-cyclohexanediaminotetraacetate, triethylenetetramine hydrochloride and sodium diethylthiocarbamate reduce hepatic burden of cadmium, alter
cadmium induced hepatic metallothionein levels and metallothionein bound zinc and copper contents but does not affect metallothionein bound cadmium.