

LIST OF TABLES

Table	Page
1. Food components affecting dietary iron bioavailability.	44
2. Effect of ascorbic acid on iron absorption/availability in the in vivo and the in vitro systems.	46
2A. Effect of molar ratio of ascorbic acid to iron on the magnitude of increase in iron absorption/availability in the in vivo and in vitro systems.	50
3. Effect of citrate on iron absorption/availability in the in vivo and the in vitro systems.	59
4. Effect of tannins (and polyphenols) on iron absorption/availability in the in vivo and the in vitro systems.	65
5. Effect of phytate on iron absorption/availability in the in vivo and in vitro systems.	75
6. Effect of oxalate on iron absorption/availability in the in vivo and in the vitro systems.	81
7. Effect of calcium/phosphate on iron absorption in the in vivo/human/rat studies.	84
8. Food composition of the meals used in Phase I.	99
9. Range of dietary intake (per capita unit per day) of iron and various enhancers and inhibitors present in Indian meals.	105
10. Range of dietary intake of enhancers and inhibitors for 3 mg iron intake.	106
11. Selected dose levels of various enhancers and inhibitors per 3 mg iron.	108
12. Levels of enhancers and inhibitors selected for studying the interaction effect in the pure system.	109

13.	Mean daily intake of food by the three income group women (n=18).	113
14.	Percentage contribution by different meals to the total daily intake of iron in women belonging to the three income groups.	114
15.	Composition of the standard meal.	116
16.	Levels of enhancers and inhibitors selected for studying the interaction effect from the standard meal.	120
17.	Food composition of the typical Indian meals used in Phase VI.	122
18.	Parameters analysed in various experimental phases.	127
19.	Nutrient composition of the 12 selected meals, chemically analysed vs calculated values (Phase I)	154
20.	Total, soluble, ionisable and in vitro available iron as estimated for 12 selected meals vs the values reported by respective authors (Phase I).	155
21.	Dose effect of various enhancers and inhibitors on ionisable and in vitro available iron from the pure system (Phase II)	159
22.	Correlation coefficients and regression analysis of the interaction effect of various enhancers and inhibitors on % iron availability from the pure system (Phase III).	164
23.	Dose effect of various enhancers and inhibitors on soluble, ionisable and in vitro available iron from the standard meal (Phase IV).	167
24.	Effect of bran (wheat and rice), dephytinised bran or mono ferric-phytate on % iron availability from the pure system (Sub-study, Phase IV).	175
25.	Correlation coefficients and regression analysis of the interaction effect of various enhancers and inhibitors on % iron availability from the standard meal (Phase V).	178
26.	Total iron content and content of various enhancers and inhibitors in 10 typical Indian meals; actual estimated values vs the calculated values (Phase VI).	182

27.	Soluble, ionisable and in vitro available iron content of the ten typical Indian meals (Phase VI).	184
28.	Predictive models evolved in the present study and that of Monsen and Balintfy (1982), as applied to ten typical Indian meals (Phase VI).	185
29.	Estimated % in vitro available iron vs computed % available iron using equation no.1 and 2 as applied to the 10 Indian meals (Phase VI).	187
30.	Estimated % in vitro available iron vs computed % bioavailable iron using equation no.3 (Monsen and Balintfy, 1982), as applied on 10 Indian meals (Phase VI).	189
31.	Magnitude of increase/decrease in iron availability from the basal value, on addition of increasing doses of the enhancers and inhibitors to the pure system or the STD meal.	199