

LIST OF TABLES

Table No.	Title	Page No.
1	Body mass index cut-off for Asians	44
2	ATP III criteria (modified)	79
3	Age wise distribution of the subjects	89
4	Mean anthropometric measurements of the subjects	92
5	Age wise distribution of the subjects based on height and phenotype	93
6	Age wise distribution of the subjects based on weight and phenotype	95
7	Age wise distribution of the subjects based on waist circumference (WC) and phenotype	98
8	Age wise distribution of the subjects based on hip circumference (HC) and phenotype	99
9	Age wise distribution of the subjects based on waist to height ratio (WHtR) and phenotype	103
10	Age wise distribution of the subjects based on Conicity Index (CI) and phenotype	104
11	Coefficient of correlation between anthropometric parameters and BMI	107
12	Organoleptic evaluation of functional food supplement	109
13	Nutrient content of functional food supplement	109
14	Phytochemical screening of selected food ingredients and supplement	110
15	Quantitative analysis of phytochemicals	111
16	Enzymatic antioxidants in functional food supplement	112
17	Pancreatic lipase inhibiting activity of food supplement	118
18	Shelf life evaluation of functional food mix	118
19	Socio economic profile of the selected subjects	120

Table No.	Title	Page No.
20	Dietary pattern of the subjects	122
21	Details of the time spent on routine daily activities	124
22	Mean anthropometric measurements of the subjects	126
23	Biochemical profile of the subjects	128
24	Mean body composition measures of the subjects	133
25	Mean food intake of the selected male subjects	137
26	Mean food intake of the selected female subjects	140
27	Mean nutrient intake of the selected male subjects	142
28	Mean nutrient intake of the selected female subjects	144
29	Prevalence of metabolic syndrome based on phenotype	146
30	Mean resting energy expenditure of the selected subjects	147
31	Mean total energy expenditure of selected male subjects	150
32	Prevalence of polymorphism based on phenotype and gender	153
33	Mean changes in the anthropometric measurements of the selected obese subjects	155
34	Mean changes in the anthropometric measurements of the selected overweight subjects	158
35	Mean Changes in Anthropometric Measurement of Selected Normal Subjects	160
36	Mean changes in the biochemical profile of the selected obese subjects	163
37	Coefficient of correlation between BMI and biochemical	167
38	Coefficient of correlation between BMI and biochemical	168
39.	Mean changes in biochemical profile of selected overweight subjects	169

Table No.	Title	Page No.
40	Coefficient of correlation between BMI and biochemical	173
41	Coefficient of correlation between BMI and body composition	174
42	Mean changes in biochemical profile of selected normal subjects	175
43	Coefficient of correlation between BMI and body composition	178
44	Mean changes in the body composition measures of the selected obese subjects	180
45	Coefficient of correlation between BMI and body composition	184
46	Coefficient of correlation between BMI and body composition	185
47	Mean changes in the body composition measures of the selected overweight subjects	187
48	Coefficient of correlation between BMI and body composition	191
49	Coefficient of correlation between BMI and body composition	192
50	Mean changes in the body composition measures of the selected normal subjects	194
51	Coefficient of correlation between BMI and body composition	197
52	Mean changes in the energy balance of the selected obese subjects	199
53	Mean changes in the energy balance of the selected overweight subjects	201
54	Mean changes in the energy balance of the selected normal subjects	203

LIST OF FIGURES

Figure No	Title	Page No
1	Recommendation for physical activity	21
2	Nutrigenomics and Nutrigenetics	28
3	Molecular Targets – susceptibility factors	29
4	Genes linked to networks	30
5	Peroxisome Proliferator Activated Receptor (PPAR)	33
6	Nutrigenomics – Quantification of the nutritional genotype - Phenotype	34
7	Map of India and Tamil Nadu	38
8	Composition of Functional Food Mix Variations	52
9	Preparation of Functional food Supplement	53
10	Materials used for imparting nutrition education	84
11	Methodology	87
12	Distribution of the subjects based on BMI and gender	90
13	Agewise distribution of subjects based on Body Mass Index (BMI)	96
14	Agewise distribution of the subjects based on Waist Hip Ratio (WHR) and phenotype	101
15	Agewise distribution of the subjects based on Body Adiposity Index (BAI) and phenotype	106
16	DPPH radical scavenging activity of food supplement	114
17	Ferric reducing antioxidant power of food supplement	115
18	Reducing power activity of functional food supplement	116
19	Nitric oxide radical scavenging activity of functional food supplement	117

LIST OF PLATES

Plate No.	Title	Page No.
1	Participants signing consent form	39
2	Measurement of HEIGHT AND weight	41
3	Phytochemical screening – Qualitative analysis	55
4	Ethanollic and aqueous extract of functional food mix	56
5	Restricted Fragment Length Polymorphism (RFLP) technique	77
6	Measurement of Blood Pressure and Collection of Blood	78
7	Nutrition Education in progress	82
8	Total Bacterial Count and Total Fungal Count	119
9	Confirmation of genotype in gel electrophoresis	153
