

T1		The same of the sa
Figure no.	Legend	Page no.
1.1	From ancient tradition to modern drug discovery	1
1.2	Evidence exists for some herbal medicines	8
1.3	The Approach: Research design for the evaluation of natural product	9
1.4	A hierarchy of evidence-Translational research approach	10
1.5	Regulatory approaches for a botanical product	11
1.6	The pathophysiology of asthma	17
1.7	Treatment hierarchy used to add further drugs as asthma becomes increasingly severe	23
1.8	Modulation of Th ₁ cell immune response by Treg cells and CAM	25
1.9	Reactive species in CVD pathophysiology	27
1.10	Generation of reactive species in CVD	28
3.1	Fractionation of hydroalchoholic extract of LNL and LNR	46
3.2	Preparations of extracts and its fractions of O. corniculata	49
4.1	Leonotis nepetaefolia plant	68
4.2	Transverse sections (TS) and powder microscopy of leaf and root of <i>L.nepetaefolia</i>	69
4.3-4.8	HPTLC fingerprint of LNL	76-79
4.8-4.14	HPTLC fingerprint of LNR	79-82
4.15	HPTLC estimation of LNLAL-01	83-85
4.16	HPTLC estimation of LN-02 in LN	87-88
4.17	HPLC Chromatogram of isolated LNLAL-01	90
4.18	HPLC Chromatogram of alkaloid fraction of <i>L. nepetaefolia</i> leaves	90
4.19	Calibration curve of LNLAL-01 for quantification in alkaloid fraction by HPLC	91
4.20	Rapid screening of antioxidant constituents of LN by HPTLC	96
4.21	Multiple pathways of apoptosis	97
4.22	% viability of cells with SEM of various fraction/isolates from LN	99
4.23	Dose dependent anti-proliferation of active fractions from LN on A549 cells	99
4.24	Role of 5-lipoxygenase in inflammation and bronchocontriction	101
4.25	IC ₅₀ of different fractions and isolates in LOX inhibition assay	101
4.26	General overview of sources of ROS and types of cells affected by ROS	103
4.27	Oxidative and nitrosative stress in asthma	104
4.28	Dose dependent inhibition of oxidative stress by ketotifen and constituents of <i>L. nepetaefolia</i>	105

Figure	Legend	Page no.
4.28	Dose dependent inhibition of oxidative stress by ketotifen and constituents of <i>L. nepetaefolia</i>	105
4.29	Involvement of mast cells in allergen-induced airway inflammation	107
4.30	Results of mast cell degranulation	108
4.31	Difference in leucocytes count of control and treated rats	. 109
4.32	Difference in eosinophil count of control and treated rats	111 ·
4.33	PCT (pre convulsive time) of different fractions administered to guinea pigs	114
4.34	Whole plant of Oxalis corniculata	115
4.35	TS of stem and root of OC	116
4.36	TS of OC leaf	117
4.37	HPTLC fingerprint of methanol extract of whole plant of O. corniculata in different solvents	122
4.38	Fractionation of plant material of O. corniculata	123
4.39- 4.41	HPTLC fingerprinting of OC fractions	124-126
4.42	Quantification of OC-01 in flavonoid fraction of <i>O. corniculata</i> by HPTLC	127
4.43	HPLC Chromatogram of isolated OC-01	129
4.44	HPLC Chromatogram of flavonoids fraction of OC	129
4.45	Calibration curve for the estimation of OC-01 by HPLC	130
4.46	Antioxidant activity of OC fraction by DPPH with IC ₅₀	131
4.47	Antioxidant activity of OC fraction by FeCl3 reducing power with IC ₅₀	132
4.48	Total Antioxidant activity of OC fraction by Phosphomolybdenum method with IC ₅₀	133
4.49- 4.51	Histoarchitechture of rat hearts of various groups	139-141
4.52	TTC stained rat hearts of various groups	142
4.53	Chemical structure of leonurine	143
4.54	UV spectrum of LNLAL-01	143
4.55	IR spectrum of LNLAL-01	144
4.56	Proton NMR spectrum of LNLAL-01	144
4.57	Mass spectrum of LNLAL-01	145
4.58	Chemical structure of swertisin	145
4.59	Ultra violet spectrum of isolated OC-01 overlaid with swertisin	146
4.60	IR spectrum of OC-01	146
4.61	Proton NMR spectrum of OC-01	147
4.62	Mass spectrum of OC-01	147
4.63	Mass fragmentation of OC-01	148