## LIST OF PLATES

<table>
<thead>
<tr>
<th>Plate No.</th>
<th>Title</th>
<th>Page No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.1</td>
<td>Oral administration of marbofloxacin in broiler chickens</td>
<td>81</td>
</tr>
<tr>
<td>3.2</td>
<td>Oral administration of quercetin in broiler chickens</td>
<td>81</td>
</tr>
<tr>
<td>3.3</td>
<td>Fixation of IV catheter (26 G x ¾; 0.6 x 0.19 mm) in wing vein</td>
<td>82</td>
</tr>
<tr>
<td>3.4</td>
<td>Collection of blood samples through IV catheter from wing vein</td>
<td>82</td>
</tr>
<tr>
<td>3.5</td>
<td>RNA quality confirmation in denaturing gel electrophoresis with band of 18 S and 28 S</td>
<td>101</td>
</tr>
<tr>
<td>3.6</td>
<td>PCR conformation with specific primers for β-actin, MDR1 and CYP3A37 gene in different target tissues (a) liver (b) duodenum</td>
<td>101</td>
</tr>
<tr>
<td>4.1</td>
<td>Macroscopic view of liver showing normal appearance in (a) control group, (b) marbofloxacin i.v. (c) marbofloxacin p.o. (d) piperine + marbofloxacin p.o. (e) quercetin + marbofloxacin p.o. (f) piperine + quercetin + marbofloxacin p.o.</td>
<td>237</td>
</tr>
<tr>
<td>4.2</td>
<td>Macroscopic view of kidney showing normal appearance in (a) control group, (b) marbofloxacin i.v. (c) marbofloxacin p.o. (d) piperine + marbofloxacin p.o. (e) quercetin + marbofloxacin p.o. (f) piperine + quercetin + marbofloxacin p.o.</td>
<td>238</td>
</tr>
<tr>
<td>4.3</td>
<td>Macroscopic view of lung showing normal appearance in (a) control group, (b) marbofloxacin i.v. (c) marbofloxacin p.o. (d) piperine + marbofloxacin p.o. (e) quercetin + marbofloxacin p.o. (f) piperine + quercetin + marbofloxacin p.o.</td>
<td>239</td>
</tr>
<tr>
<td>4.4</td>
<td>Macroscopic view of heart showing normal appearance in (a) control group, (b) marbofloxacin i.v. (c) marbofloxacin p.o. (d) piperine + marbofloxacin p.o. (e) quercetin + marbofloxacin p.o. (f) piperine + quercetin + marbofloxacin p.o.</td>
<td>240</td>
</tr>
<tr>
<td>4.5</td>
<td>Macroscopic view of intestine showing normal appearance in (a) control group, (b) marbofloxacin i.v. (c) marbofloxacin p.o. (d) piperine + marbofloxacin p.o. (e) quercetin + marbofloxacin p.o. (f) piperine + quercetin + marbofloxacin p.o.</td>
<td>241</td>
</tr>
</tbody>
</table>
4.6 Macroscopic view of gizzard and proventriculus showing normal appearance in Gizzard: (a) control group, (b) marbofloxacin i.v. (c) marbofloxacin p.o. (d) piperine + marbofloxacin p.o.; Proventriculus: (e) marbofloxacin i.v. (f) marbofloxacin p.o.

4.7 Microscopic view of liver showed normal hepatic lobules and architecture in group I (control) broiler chickens (H & E stain x 240)

4.8 Microscopic view of liver showed normal hepatic lobules and architecture in group II (marbofloxacin i.v.) broiler chickens (H & E stain x 240)

4.9 Microscopic view of liver showed normal hepatic lobules and architecture in group III (marbofloxacin p.o.) broiler chickens (H & E stain x 240)

4.10 Microscopic view of liver showed normal hepatocytes architecture in group III (marbofloxacin p.o.) broiler chickens (H & E stain x 480)

4.11 Microscopic view of liver showed normal hepatic lobules and architecture in group V (quercetin + marbofloxacin p.o.) broiler chickens (H & E stain x 240)

4.12 Microscopic view of liver showed normal hepatic architecture in group VI (piperine + quercetin + marbofloxacin p.o.) broiler chickens (H & E stain x 240)

4.13 Microscopic view of kidney showed normal glomeruli and renal tubular epithelium in group I (control) broiler chickens (H & E stain x 240)

4.14 Microscopic view of kidney showed normal glomeruli and renal tubular epithelium in group II (marbofloxacin i.v.) broiler chickens (H & E stain x 240)

4.15 Microscopic view of kidney showed normal glomeruli and renal tubular epithelium in group IV (piperine + marbofloxacin p.o.) broiler chickens (H & E stain x 240)

4.16 Microscopic view of kidney showed normal glomeruli and renal tubular epithelium in group V (quercetin + marbofloxacin p.o.) broiler chickens (H & E stain x 240)
4.17 Microscopic view of kidney showed normal glomeruli and renal tubular epithelium in group VI (piperine + quercetin + marbofloxacin p.o.) broiler chickens (H & E stain x 240)

4.18 Microscopic view of kidney showed normal glomeruli and renal tubular epithelium in group VI (piperine + quercetin + marbofloxacin p.o.) broiler chickens (H & E stain x 480)

4.19 Microscopic view of intestine showed normal intestinal villi and epithelium in group I (control) broiler chickens (H & E stain x 240)

4.20 Microscopic view of intestine showed normal intestinal villi epithelium, serosa and glands in group III (marbofloxacin p.o.) broiler chickens (H & E stain x 240)

4.21 Microscopic view of intestine showed normal intestinal villi and epithelium in group IV (piperine + marbofloxacin p.o.) broiler chickens (H & E stain x 240)

4.22 Microscopic view of intestine showed normal intestinal villi and epithelium in group IV (piperine + marbofloxacin p.o.) broiler chickens (H & E stain x 480)

4.23 Microscopic view of intestine showed normal intestinal villi, glands and epithelium in group V (quercetin + marbofloxacin p.o.) broiler chickens (H & E stain x 240)

4.24 Microscopic view of intestine showed normal intestinal villi and epithelium in group VI (piperine + quercetin + marbofloxacin p.o.) broiler chickens (H & E stain x 240)

4.25 Microscopic view of lung showed normal architecture of lung alveoli in group I (control) broiler chickens (H & E stain x 240)

4.26 Microscopic view of lung showed normal architecture of bronchioles in group II (marbofloxacin i.v.) broiler chickens (H & E stain x 240)

4.27 Microscopic view of lung showed normal architecture of lung alveoli in group III (marbofloxacin p.o.) broiler chickens (H & E stain x 240)
4.28 Microscopic view of lung showed normal architecture of lung alveoli in group IV (piperine + marbofloxacin p.o.) broiler chickens (H & E stain x 240) 253
4.29 Microscopic view of lung showed normal architecture of lung alveoli in group V (quercetin + marbofloxacin p.o.) broiler chickens (H & E stain x 240) 254
4.30 Microscopic view of lung showed normal architecture of lung alveoli in group V (quercetin + marbofloxacin p.o.) broiler chickens (H & E stain x 480) 254
4.31 Microscopic view of heart showed normal architecture of muscular bundles in group I (control) broiler chickens (H & E stain x 240) 255
4.32 Microscopic view of heart showed normal architecture of muscular bundles in group II (marbofloxacin i.v.) broiler chickens (H & E stain x 240) 255
4.33 Microscopic view of heart showed normal architecture of muscular bundles in group IV (piperine + marbofloxacin p.o.) broiler chickens (H & E stain x 240) 256
4.34 Microscopic view of proventriculus showed normal architecture of plica, muscular bundles and epithelium in group I (control) broiler chickens (H & E stain x 240) 256
4.35 Microscopic view of proventriculus showed normal architecture of plica and epithelium in group V (quercetin + marbofloxacin p.o.) broiler chickens (H & E stain x 240) 257
4.36 Microscopic view of proventriculus normal architecture of plica, muscular bundles and epithelium in group VI (piperine + quercetin + marbofloxacin p.o.) broiler chickens (H & E stain x 240) 257