CHARACTERIZATION OF 1-ACBP, B-ACBP AND PBR IN OESOPHAGEAL CANCER.

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A dissertation submitted to the Faculty of Science, University of the Witwatersrand, Johannesburg, in fulfilment of the requirements for the degree of Master of Science

Johannesburg, 2005
DECLARATION

I (Michelle McCabe) declare that this thesis is my own work. It is being submitted for the Degree of Master of Science in the University of the Witwatersrand, Johannesburg. It has not been submitted before for any degree or examination in any other University.

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(Signature of candidate)

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DEDICATION

I dedicate this work to my family, especially my mother and father for their love, patience and support, my three brothers for their love and support and hope that it will inspire them, and to my late sister who passed away from brain cancer inspiring me to be who I am today. And to everyone who supported me during my studies.
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Abbreviations:

5-FU  5-fluorouracil
ACBP  AcylcoenzymeA binding protein
AINs  Apoptosis inducing nucleosides
ANC  Adenine nucleotide carrier
Apaf-1  Apoptosis activating factor 1
APC  Adenomatous polyposis coli
BAAC  Barrets oesophagus associated adenocarcinoma
BCH  Basal cell hyperplasia; BE, Barret’s Esophagus
Bcl-2  B-cell lymphoma mutant #2
Bcl-xl  B-cell lymphoma extra long
cAMP  Cyclic adenosine monophosphate
CDDP  Cisplatin
CDK  Cyclin dependent kinase
CNS  Central Nervous System
COX-2  Cyclooxygenase 2
CSNK  Casein kinase
CTSB  Cathepsin B;
DBI  Diazepam binding inhibitor (DBI)
DeR3  Decoy receptor member 3
DISC  Death inducing signalling complex
<table>
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<th>Abbreviation</th>
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<tr>
<td>DLC1</td>
<td>Deleted in lung cancer 1</td>
</tr>
<tr>
<td>EMR</td>
<td>Endoscopic mucosal resection</td>
</tr>
<tr>
<td>FasL</td>
<td>Fas receptor ligand</td>
</tr>
<tr>
<td>GASC1</td>
<td>Gene amplified in squamous cell carcinoma 1</td>
</tr>
<tr>
<td>iNOS</td>
<td>Inducible nitric oxide synthase</td>
</tr>
<tr>
<td>Lef</td>
<td>Lymphoid enhancer binding factor</td>
</tr>
<tr>
<td>LOH</td>
<td>Loss of Heterozygosity</td>
</tr>
<tr>
<td>LOI</td>
<td>Loss of imprinting</td>
</tr>
<tr>
<td>MMP-7</td>
<td>Matrix metalloproteinase-7</td>
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<tr>
<td>MPTP</td>
<td>Mitochondrial Permeable Transition Pore</td>
</tr>
<tr>
<td>MT</td>
<td>Metallothionein; MTX, Methotrexate</td>
</tr>
<tr>
<td>ODC</td>
<td>Ornithine Decarboxylase</td>
</tr>
<tr>
<td>P450scc</td>
<td>Cytochrome P450 enzyme</td>
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<tr>
<td>p53</td>
<td>Protein with molecular weight ~53kD</td>
</tr>
<tr>
<td>p63</td>
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<tr>
<td>PARP</td>
<td>Poly-ADP-ribose polymerase</td>
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<tr>
<td>PBR</td>
<td>Peripheral Benzodiapine-type Receptor</td>
</tr>
<tr>
<td>PCNA</td>
<td>Proliferating cell nuclear antigen</td>
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<td>PDT</td>
<td>Photodynamic therapy</td>
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<td>pRb</td>
<td>Retinoblastoma protein</td>
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<td>T cell specific transcription factor</td>
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<td>TSGs</td>
<td>Tumour Suppressor Genes</td>
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<td>VDAC</td>
<td>Voltage-dependant anion channel</td>
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