CLAIMS

1. A pharmaceutical composition for bacterial infections and wound healing, ~~characterised in that said~~ the pharmaceutical composition ~~formulation comprises~~ includes a plurality of ~~following~~ components comprising:
   - a topical antibiotic phar~~a~~maceutically active agent;
   - ~~a~~ biopolymer~~s such as~~including Chiosan and ~~;~~
   - hydrolysed collagen of type I; and
   - an ointment base;

   wherein ~~all~~ the components are mixed homogeneously to form an ointment of pH value between 6.8 and 7.2~~.~~,
   wherein ~~said~~ the topical antibiotic pharmaceutically active agent is Mupirocin present in an amount between 0.1% (w/w) to 5% (w/w), ~~preferably 2% (w/w),~~
   wherein ~~said biopolymer is~~ the Chitosan is present in an amount between 0.01% (w/w) to 0.5% (w/w), ~~preferably 0.05% (w/w),~~
   and
   wherein ~~said~~ the hydroly~~z~~sed collagen of type I is present in an amount between ~~of from about~~ 0.01 (w/w) ~~and~~ to 0.5% (w/w)~~, preferably 0.05% (w/w)~~.

2. The pharmaceutical composition as claimed in claim 1, wherein the Mupirocin is present in an amount of 2% (w/w).

3. The pharmaceutical composition as claimed in claim 1, wherein the Chitosan is present in an amount of 0.05% (w/w).

4. The pharmaceutical composition as claimed in claim 1, wherein the hydrolysed collagen of type I is present in an amount of 0.05% (w/w).

~~2.~~5. The pharmaceutical composition as claimed in claim~~s~~ 1, wherein ~~said~~ the ointment base comprises ~~waxy materials, co-solvents, acids, and buffering agents,~~thickeners,~~preservatives, anti oxidants, and chelating agents, humectants, water in the following proportions~~:
   - waxy materials ~~are~~ selected from a group comprising Polyethylene Glycols (PEG),~~such as~~ PEG 400, PEG 500, PEG 1000, PEG 1200, PEG 1500, PEG 1800, PEG 2000, PEG 2200, PEG 3550, ~~and~~ PEG 4000, ~~alone or in~~ and any combination thereof, ~~and the like~~ and present in an amount between 5% (w/w) to 80% (w/w),
   - co-solvents ~~are~~ selected from a group comprising Propylene Glycol, Hexylene Glycol, PEG -200, PEG 300, PEG 400, and PEG 500, and present in an amount between 5% (w/w) to 80% (w/w),

- acids ~~such as~~ selected from a group comprising HCl, H_2SO_4, HNO_3, and Lactic acid ~~and the like~~ and present in an amount between 0.005% (w/w) to 1% (w/w),
- thickeners selected from a group comprising ~~such as~~ Acrylamide/Sodium AcryloyldimethylTaurate Copolymer/Isohexadecane&Polysorbate 80 (Brand Name – Sepineo™ P 600), Microcrystalline Cellulose, Carboxymethyl Cellulose, HydroxypropylMethylCellulose, EthylCellulose, and any combination thereof,~~and the like alone or in combination~~ and present in an amount between 0.05% (w/w) to 10% (w/w),
- preservatives ~~are~~ selected from a group comprising Methylparaben, Propylparaben, Chlorocresol, Potassium sorbate, Benzyl Alcohol, and Phenoxyethanol,~~and the like~~ and present in an amount between 0.05% (w/w) to 2.0 % (w/w),
- ~~anti oxidants are selected from a group comprising ButylatedHydroxy Anisole, ButylatedHydroxy Toluene and the like and present in an amount between 0.05% (w/w) to 5% (w/w),~~
- chelating agents ~~are selected from a group~~ comprising Disodium EDTA ~~and the like~~ and present in an amount between 0.0~~5~~1% (w/w) to 1% (w/w), and
- water present in an amount between 0.5% (w/w) to 5% (w/w).

~~3~~6. The pharmaceutical composition as claimed in any of claims 1 ~~or 2~~to 5, wherein ~~said~~ the Ce~~h~~itosan has a degree of deacetylation of no less than 70%.~~,~~

7. The pharmaceutical composition as claimed in any of claims 1 to 5, wherein the Chitosan has a degree of deacetylation of ~~more preferably~~ no less than 80%.

~~4~~8. The pharmaceutical composition as claimed in any of claims 1 to ~~3~~7, wherein ~~said~~ the Ce~~h~~itosan has a bacterial endotoxin level of 100 IU/g.

~~5~~9. The pharmaceutical composition as claimed in any of claims 1 to ~~4~~8, wherein ~~said~~ the Ce~~h~~itosan has a molecular weight ~~in the range~~ between 250,000 Da to 600,000 Da.

10. The pharmaceutical composition as claimed in any of claims 1 to 9, wherein the hydrolysed collagen has a molecular weight between 1000 Da to 10000 Da.