CLAIMS

~~What is claimed:~~

~~1. A composition with enhanced bioavailability of a health-promoting substance wherein said composition comprises a health-promoting substance selected from pharmaceuticals and nutritional supplements, and wherein said composition further comprises a bioavailability-enhancing amount of a biosurfactant adjuvant.~~

~~2. The composition of claim 1, further comprising a pharmaceutically-acceptable carrier.~~

~~3. The composition of claim 1, wherein the biosurfactant is selected from glycolipids and lipopeptides.~~

~~4. The composition of claim 3, wherein the glycolipids are selected from sophorolipids, rhamnolipids, trehalose lipids, and mannosylerythritol lipids.~~

~~5. The composition of claim 3, wherein the lipopeptides are selected from surfactins, iturins, lichenysins, and fengycin.~~

~~6. The composition of claim 1, wherein the biosurfactant is present in critical micelle concentration (CMC).~~

~~7. The composition of claim 1, formulated for administration to a subject through a route selected from oral, intravenous, rectal, vaginal, ocular, transdermal, aural, nasal, mucosal, inhalation and cutaneous.~~

~~8. The composition of claim 1, formulated as a delivery system wherein the health-promoting substance is encapsulated in a nanocapsule formed by the biosurfactant.~~

1~~9~~. A method for enhancing the bioavailability of a ~~health-promoting substance~~pharmaceutical, the method comprising orally administering to the subject a composition comprising said pharmaceutical and a bioavailability-enhancing amount of a purified sophorolipid, wherein at least 90% by weight of said purified sophorolipid is in a lactonic form, and

wherein said pharmaceutical is at least one of antivirals, pain-relievers, and anti-inflammatory compounds.

~~therapeutically-effective amount of said substance simultaneously or sequentially with an adjuvant composition comprising a biosurfactant.~~

~~10. The method of claim 9, wherein the health-promoting substance and the adjuvant composition are administered by oral ingestion, injection, or inhalation.~~

~~11. The method of claim 9, used to enhance the penetration of the health-promoting substance into epithelial cells in the subject's gastrointestinal tract.~~

~~12. The method of claim 9, used to enhance penetration of the health-promoting substance across the subject's blood-brain barrier.~~

~~13. The method of claim 9, used to reduce the dose of the health-promoting substance that is required for it to be therapeutically-effective in the subject.~~

~~14. A method for enhancing the bioavailability of a health-promoting substance, the method comprising administering a therapeutically-effective amount of a composition of claims 1-8 to a subject in need thereof.~~

~~15. The method of claim 14, used to enhance the penetration of the health-promoting substance into epithelial cells in the subject's gastrointestinal tract.~~

~~16. The method of claim 14, used to enhance penetration of the health-promoting substance across the subject's blood-brain barrier.~~

~~17. The method of claim 14, used to reduce the dose of the health-promoting substance that is required for it to be therapeutically-effective in the subject.~~

2. The adjuvant composition of claim 1, wherein said pharmaceutical is acyclovir, ribavirin, valacyclovir, or famciclovir.

3. The adjuvant composition of claim 1, wherein said pharmaceutical is ibuprofen or aspirin.