CLAIMS

~~What is claimed is:~~

1. An implantable device comprising a nanostructure of reservoir molecules that are reservoirs for nitric oxide.

2. The implantable device of claim 1, wherein the reservoir molecule is a lipid.

3. The implantable device of claim 2, wherein the lipid is a modified phospholipid.

4. The implantable device of any one of claims 1-3, further comprising an apolipoprotein.

5. The implantable device of any one of claims 2-4, wherein the lipid is a S-Nitrosylated lipid.

6. The implantable device of any one of claims 2-4, wherein the lipid is a S-Nitrosylated 1,2-dipalmitoyl-sn-glycero-3-phosphothioethanol (DPPTE).

7. The implantable device of any one of claims 1-4, wherein the nanostructure has a core and a lipid bilayer or monolayer.

8. The implantable device of any one of claim 7, wherein the core is a gold core.

9. The implantable device of any one of claims 4-8, wherein the apolipoprotein is apolipoprotein A-I (apoA-I).

10. The implantable device of any one of claim 1, wherein the reservoir molecule is not a lipid.

11. The implantable device of any one of claims 1-10, wherein the reservoir molecules contain an NO donating group.

12. The implantable device of any one of claims 1-9, wherein the implantable device is a stent.

13. The implantable device of any one of claims 1-12, wherein the implantable device is a drug-eluting stent.

~~14. A method for delivering NO to a subject comprising:~~

~~administering to a subject having a NO mediated disorder by injection, through a catheter or on an implantable device, a nanostructure of reservoir molecules and nitric oxide.~~

~~15. The method of claim 13, wherein the NO mediated disorder is angiogenesis or ischemia-reperfusion.~~

~~16. The method of claim 14, wherein the NO mediated disorder is restenosis.~~

~~17. The method of claim 14, wherein the vascular intervention is angioplasty.~~

~~18. The method of claim 14, wherein the NO mediated disorder is atherosclerosis.~~

~~19. The method of claim 14, wherein the NO mediated disorder is dysregulated blood pressure.~~

~~20. The method of claim 14, wherein the NO mediated disorder is graft rejection after transplantation.~~

~~21. The method of any one of claims 14-20, wherein the reservoir molecule is a lipid.~~

~~22. The method of claim 21, wherein the lipid is a modified phospholipid.~~

~~23. The method of any one of claims 14-22, wherein the nanostructure further comprises an apolipoprotein.~~

~~24. The method of any one of claims 21-23, wherein the lipid is a S-Nitrosylated lipid.~~

~~25. The method of any one of claims 21-23, wherein the lipid is a S-Nitrosylated 1,2-dipalmitoyl-sn-glycero-3-phosphothioethanol (DPPTE).~~

26. The method of any one of claims 14-25, wherein the nanostructure has a core and a lipid bilayer or monolayer.

27. The method of claim 26, wherein the core is a gold core.

28. The method of any one of claims 23-27, wherein the apolipoprotein is apolipoprotein A-I (apoA-I).

29. The method of any one of claims 14-28, wherein the reservoir molecule is not a lipid.

30. The method of any one of claims 14-29, wherein the reservoir molecules contain an NO donating group.

31. A method for transplanting a donor organ in a recipient subject comprising:

harvesting a donor organ;

contacting the donor organ with the implantable device of any one of claims 1-13; and

transplanting the donor organ into a recipient subject, wherein the implantable device reduces the risk of rejection of the donor organ relative to the risk of a donor organ transplanted without exposure to the implantable device.

32. A method for transplanting an organ in a recipient subject comprising:

preparing an implantable device that is an organ; wherein the implantable device is a device of any one of claims 1-13; and transplanting the organ into a recipient subject.