What is claimed is:

1. A method for removing a toxic or undesirable molecule from an environment comprising administering to the environment a composition of microparticles, said microparticles comprising an aqueous phase, wherein said aqueous phase comprises (i) a system for generating NAD^+ from NADH comprising NADH oxidase (NOX), and (ii) one or more enzymes that are involved in one or more NAD^+-dependent reactions that remove said toxic or undesirable molecules from said environment.

2. The method of claim 1 wherein the microparticles comprise a polymeric or lipid membrane.

3. The method of claim 1, wherein the microparticles are liposomes.

4. The method of claim 1, wherein the system of generating NAD^+ from NADH consists of NADH oxidase (NOX).

5. The method of claim 1, wherein said system for generating NAD+ from NADH comprises NADH oxidase (NOX) and oxygen.

~~5.~~6. The method of claim 1, wherein the environment is a water supply system, a food packaging, a bioreactor, a chemical reactor, a body cavity or a subject's blood.

~~6.~~7. The method of claim ~~6~~5, wherein the subject is a human or animal.

~~7.~~8. The method of claim ~~1~~6, wherein the toxic or undesirable molecule is ethanol.

9. The method of claim 8, wherein said microparticles continuously convert ethanol to acetate.

~~8.~~10. The method of claim ~~8~~7, wherein said enzymes that are involved in the NAD^+-dependent reactions comprise alcohol dehydrogenase (ADH) and acetaldehyde dehydrogenase (ALDH).

11. The method of claim 10, wherein the ADH, ALDH and NOX are present in a ratio of about 1 part ADH to about 500 parts ALDH to about 70 parts NOX.

~~9.~~12. The method of claim ~~10~~8, wherein the ADH, ALDH and NOX are present in a ratio of about 1:44:2.

~~10.~~13. The method of claim ~~7~~6, wherein the composition of microparticles is administered to the subject intravenously, intramuscularly, intraperitoneally, or by inhalation.

14. The method of claim 1, wherein the NAD+ dependent ADH or NAD+ dependent ALDH is from bacteria, yeast, plants, or mammals.

15. The method of claim 14, wherein the NAD+ dependent ADH or the NAD+ dependent ALDH is yeast ADH.

16. The method of claim 1, wherein the NAD+ dependent ADH or NAD+ dependent ALDH is expressed recombinantly.

17. The method of claim 1, wherein the NOX is Streptococcus pyogenes NOX.

~~11.~~18. A composition of microparticles for removing toxic or undesirable molecules from an environment, said microparticles comprising an aqueous phase, wherein said aqueous phase comprises (i) a system of generating NAD^+ from NADH comprising NADH oxidase (NOX), and (ii) one or more enzymes that are involved in one or more NAD^+-dependent reactions that remove said toxic or undesirable molecules from said environment.

~~12.~~19. The composition of claim 18~~11~~ wherein the microparticles comprise a polymeric or lipid membrane.

~~13.~~20. The composition of claim 18~~11~~ wherein the microparticles are liposomes.

~~14.~~21. The composition of claim 18~~11~~, wherein the system of generating NAD^+ from NADH consists of NADH oxidase (NOX).

~~15.~~22. The composition of claim 18~~11~~, wherein the toxic or undesirable molecule is ethanol.

~~16.~~23. The composition of claim 22~~15~~, wherein said enzymes that are involved in the NAD^+-dependent reactions comprise alcohol dehydrogenase (ADH) and acetaldehyde dehydrogenase (ALDH).

~~17.~~24. The composition of claim 23~~16~~, wherein the ADH, ALDH and NOX are present in a ratio of about 1:44:2.

~~18.~~25. A composition of microparticles for removing toxic or undesirable molecules from an environment, said microparticle comprises an aqueous phase, wherein said

aqueous phase comprises (i) a system of generating $NADP^+$ from NADPH comprising NADPH oxidase, and (ii) one or more enzymes that are involved in one or more $NADP^+$- dependent reactions that remove said toxic or undesirable molecules from said environment.

26. The composition of claim 25, wherein the microparticles comprise a polymeric membrane, a lipid membrane, or liposomes.

27. The composition of claim 25, wherein the system of generating $NADP^+$ from NADPH consists of NADPH oxidase.

28. The composition of claim 25, wherein the toxic or undesirable molecule is ethanol.

~~19.~~29. A method for removing a toxic or undesirable molecule from an environment, comprising the step of administering to the environment the composition of any one of claims 25-28~~18~~.

~~20. The method of claim 18, wherein the microparticle is liposome.~~

~~21.~~30. The composition of any one of claims 18 to 28 for use as a medicament.