We claim:

1. A dry powder inhaler comprising:

a) a first element comprising a mouthpiece;

b) a second element comprising a container; and

c) at least two rigid air conduits;

wherein one of the at least two rigid air conduits in ~~use~~ a dosing configuration of the dry powder inhaler ~~is configured to have~~ has a deflector or stem to direct airflow entering the container from a direction parallel to the mouthpiece to a substantially downward direction to a direction substantially parallel to the mouthpiece through ~~the~~ dry powder in the dry powder inhaler to a direction substantially perpendicular to the mouthpiece to exit the container~~movement within a powder container~~; and

wherein in a containment configuration of the dry powder inhaler, the dry powder is sealed from the at least two air conduits and from the deflector or stem.

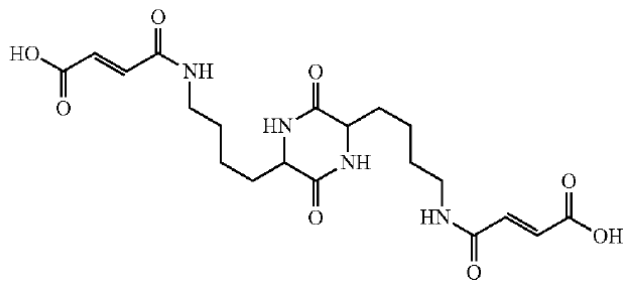
2. The dry powder inhaler of claim 1 having a resistance value to airflow ranging from about 0.065 (√kPa)/liter per minute to about 0.200 (√kPa)/liter per minute.

3. The dry powder inhaler of claim 1, wherein the dry powder is a formulation for oral inhalation and comprises an amount from about 1 mg to about 50 mg of the dry powder.

4. The dry powder inhaler of claim 1, wherein the dry powder comprises a diketopiperazine or a pharmaceutically acceptable salt thereof.

5. The dry powder inhaler of claim 4, wherein the diketopiperazine is of the formula 2,5-diketo-3,6-bis(N-X-4-aminobutyl)piperazine, wherein X is selected from the group consisting of fumaryl, succinyl, maleyl, malonyl, oxalyl and glutaryl.

6. The dry powder inhaler of claim 5, wherein the diketopiperazine is ~~bis-3,6-(N-fumaryl-4-aminobutyl)-2,5-diketo-diketopiperazine~~



7. The dry powder inhaler of claim 3, wherein the dry powder comprises a drug or an active agent.

8. The dry powder inhaler of claim 7, wherein the active agent is an endocrine hormone, vaccines~~,~~ or small molecules, including anti-asmatics, vasodilators, vasoconstrictors, muscle relaxants, neurotransmitter agonist or antagonists~~, and the like~~.

9. The dry powder inhaler of claim 3, wherein the dry powder comprises a peptide, a polypeptide, or fragments thereof, a small organic molecule or a nucleic acid molecule.

10. The dry powder inhaler of claim 9, wherein said peptide is insulin, glucagon, glucagon-like peptide-1, parathyroid hormone, deoxyribonuclease, oxytocin, oxyntomodulin, peptide YY, an exendin, analogs thereof or fragments thereof.

11. The dry powder inhaler of claim 9, wherein if the dry powder comprises a small organic molecule, the small organic molecule is a vasodialator, a vasoconstrictor, a neurotransmitter agonist or a neurotransmitter antagonist.

12. The dry powder inhaler of claim 1, wherein the container is integrated into ~~the~~ a container housing and filled with ~~a~~ the dry powder.

13. The dry powder inhaler of claim 1, wherein the ~~inhaler does not include a~~ container is removable from the dry powder inhaler.

14. The dry powder inhaler of claim 1, wherein the container is provided separate from the dry powder inhaler and is filled with ~~a~~ the dry powder.

15. The dry powder inhaler of claim 1, wherein the dry powder is an amorphous powder.

16. The dry powder inhaler of claim 11, wherein the small organic molecule is a ~~tryptan~~ triptan or an opiate.

17. The dry powder inhaler of claim 16, wherein the ~~tryptan~~ triptan is sumatriptan or rizatriptan.

~~18. A method of delivering the dry powder to a subject comprising administering to said subject an effective amount of an amorphous powder medicament using the dry powder inhaler of claim 1.~~