Claims:

1. A rapidly-orodispersible dosage form comprising a porous, durable body comprising a bound-powder material, the body having one or more interior empty cavities, preferably wherein the bound-powder material comprises an interconnected matrix of at least one ingestible powder material and at least one ingestible binder material.

2. The dosage form according to Claim 1, wherein the ingestible powder material comprises one or more pharmaceutical excipients selected from the group consisting of: a binder, a disintegration agent, a dispersant, a sweetener, a glidant, a flavoring agent, a surfactant, a humectant, a preservative, an antioxidant, a solvent, and a diluent, including combinations thereof, and the ingestible binder material is selected from the group consisting of: a water-soluble synthetic polymer, polyvinyl pyrrolidone, sorbitol, mannitol, xylitol, lactitol, erythritol, pregelatinized starch, modified starch, hydroxypropylmethylcellulose, spray dried lactose, fructose, sucrose, dextrose, sorbitol, mannitol, and xylitol, including combinations thereof, and preferably wherein the ingestible powder material comprises mannitol, microcrystalline cellulose, polyvinyl pyrrolidone, and colloidal silicon dioxide, and the binding liquid comprises water, isopropanol, glycerin, polysorbate 20, and polyvinyl pyrrolidone.

3. A kit for preparing a rapidly-orodispersible dosage form, comprising:

a porous, durable container body comprising a first bound-powder material comprising an interconnected matrix of a first ingestible powder material and a first ingestible binder material, the container body having a base, a peripheral wall extending from the base and having an inner surface, an upper surface, and an external surface, the container body having one or more empty cavities bounded by the base and the inner surface of the peripheral wall, wherein one or more payloads can be dispensed into the one or more empty cavities;

a porous, durable lidding body comprising a second bound-powder material comprising an interconnected matrix of a second ingestible powder material and second ingestible binder material, the lidding body having an undersurface configured to be positioned over the upper surface of the peripheral wall, to cover the one or more cavities and form one or more interior cavities; and

a means for securing the lidding body to the peripheral wall,

wherein

the first ingestible powder material and the second ingestible powder material comprise independently one or more pharmaceutical excipients selected from the group consisting of: a binder, a disintegration agent, a dispersant, a sweetener, a glidant, a flavoring agent, a surfactant, a humectant, a preservative, an antioxidant, a solvent, and a diluent, including combinations thereof; and

the first ingestible binder material and the second ingestible binder material are independently selected from the group consisting of: a water-soluble synthetic polymer, polyvinyl pyrrolidone, sorbitol, mannitol, xylitol, lactitol, erythritol, pregelatinized starch, modified starch, hydroxypropylmethylcellulose, spray dried lactose, fructose, sucrose, dextrose, sorbitol, mannitol, and xylitol, including combinations thereof.

4. The dosage form according to any of Claims 1-3, wherein the one or more interior cavity has a volume that is at least 5% of a volume of the dosage form, wherein preferably one or more particulate medicaments that are isolated within the one or more interior cavities, preferably wherein the one or more medicaments, have a mass of at least 1 milligram, and up to 10 grams.

5. The dosage form according to Claim 4, further comprising a dissolvable barrier material, coated onto at least a portion of an interior surface that forms a boundary for the one or more interior cavities, and preferably wherein the dissolvable barrier material is disposed between the one or more medicaments and the bound-powder material, inhibiting or preventing migration of the one or more medicaments into the bound-powder material.

6. The dosage form according to any of Claims 1-5, wherein the means for securing comprises an adhesive material applied to at least one of (i) a portion of either or both of the undersurface of the lidding body and the upper surface of the peripheral wall, and (ii) a portion of either or both of the inner surface of the perimeter wall of the lidding body and the external surface of the peripheral wall of the container body, wherein the adhesive material is preferably selected from the group consisting of: mannitol, sorbitol, xylitol, lactitol, erythritol, isomalt, povidone, copovidone, hydroxypropylcellulose, hydroxypropylmethylcellulose, carboxymethylcellulose, gelatin, casein, agar, guar gum, gellan gum, xanthan gum, locust bean gum, alginate, carrageenan, hydroxypropyl starch, pre-gelatinized starch, poloxamer, polyethylene glycol, polydextrose, and polyvinyl alcohol, and combinations thereof.

7. The dosage form according to any of Claims 1-5, wherein the means for securing comprises a first mechanical securement on the upper surface of the peripheral wall and a second mechanical securement on the lidding body, preferably the undersurface of the lidding body, wherein the mating of the first mechanical securement and the second mechanical securement with each other mechanically secures the lidding body to the container body.

8. The dosage form according to Claim 7, wherein (i) the first mechanical securement comprises one or more valleys formed into the peripheral portion of the upper surface of the peripheral wall, the second mechanical securement comprises one or more peaks formed upon the peripheral portion of the undersurface of the lidding body, and the one or more peaks of the lidding body are in register with and secured to the one or more valleys of the container body; (ii) the lidding body has a perimeter wall extending from the peripheral portion of the undersurface, the perimeter wall having a bottom surface and an inner surface, wherein the inner surface of the perimeter wall of the lidding body is frictionally engaged with at least a portion of the external surface of the peripheral wall of the container body, or (iii) the dosage form has a planar bottom surface, defined by the base of the container body and the bottom surface of the perimeter wall of the lidding body.

9. A method for forming a rapidly-orodispersible container body having an empty cavity for containing a medicament, the method comprising the following steps:

i) forming a rapidly-orodispersible container base, comprising the steps of:
    a) dispersing an ingestible build powder material into a base powder layer;
    b) dispensing a binding liquid comprising an ingestible binder material onto the base powder layer to form a first base level of a bound-powder matrix; and
    c) optionally repeating steps a) and b) one or more times to form a second or more base level of the bound-powder matrix, and thereby forming the container base;

ii) forming a rapidly-orodispersible peripheral wall, comprising the steps of:
    d) dispersing an ingestible build powder material into an intermediate powder layer atop the container base;
    e) dispensing a binding liquid comprising an ingestible binder material onto a peripheral portion of the intermediate powder layer in registry with a periphery of the container base, without dispersing the binding liquid onto an interior portion of the intermediate powder layer, to forma first peripheral wall level of a bound-powder matrix that is bound to the container base, and having an interior filled with unbound build powder material; and
    f) optionally though preferably repeating steps d) and e) one or more times to form a second or more peripheral wall level of the bound-powder matrix, and thereby forming the peripheral wall bound to the container base; and

iii) removing the unbound build powder material of the interior portion of the intermediate powder layer, thereby forming the rapidly-orodispersible container body having an empty cavity and comprising the rapidly-orodispersible container base and the rapidly-orodispersible peripheral wall;

preferably wherein the build powder material comprises one or more pharmaceutical excipients selected from the group consisting of: a binder, a disintegration agent, a dispersant, a sweetener, a glidant, a flavoring agent, a surfactant, a humectant, a preservative, an antioxidant, a solvent, and a diluent, and the binding liquid comprises one or more pharmaceutical excipients selected from the group consisting of: a disintegration agent, a humectant, a sweetener or flavoring agent, a preservative, a solvent, and a surfactant, including combinations thereof, preferably water, isopropanol, glycerin, polysorbate 20, and polyvinyl pyrrolidone.

10. The method according to Claim 9, wherein the step of removing the unbound build powder material from the filled container body comprises the sub-steps of at least one of:

(a) providing a vacuum system comprising an air inlet and an air drawing means for drawing an ambient air into the air inlet;

positioning the air inlet over the filled container body;

drawing ambient air into the positioned air inlet to fluidize the unbound build powder material within the filled container body; and

drawing the unbound build powder within the filled container body into the air inlet with the ambient air; and

(b) inverting the filled container body, and

decanting the unbound build powder material from the filled container body.

11. The method according to either of Claim 9 or Claim 10, wherein the method further comprises the steps of: recovering the removed unbound build powder material using a build powder recovery system; and returning the recovered unbound build powder material to a build powder reservoir.

12. A method for forming a rapidly-orodispersible dosage form having an interior cavity, comprising the following steps:

i) forming a rapidly-orodispersible container body according to Claim 9-11;

ii) dispensing one or more particulate payload material into the empty cavity;

iii) forming an upper layer of build powder material over the cavity containing the one or more particulate payload material and the upper surface of the container's peripheral wall;

iv) dispensing a binding liquid onto a portion of the upper layer of build powder material, to form a bound-powder upper layer atop the cavity, forming the interior cavity containing the one or more particulate payload material; and

v) optionally performing steps iii) and iv) one or more times, thereby forming the rapidly-orodispersible dosage form.

13. The method according to Claim 12, wherein the step of dispensing the one or more particulate materials comprises the sub-step of dispensing one or more filler materials onto the dispensed particulate materials, until the cavity is filled.

14. A method for forming a rapidly-orodispersible dosage form containing a solid medicament within an interior cavity of the rapidly-orodispersible dosage form, comprising the steps of:

(a) providing a porous, durable container body made of a first bound-powder material, the container body having a base, a peripheral wall extending from the base and having an inner surface, an upper surface, and an external surface, the container body having one or more empty cavities bounded by the base and the inner surface of the peripheral wall;

(b) providing a porous, durable lidding body comprising a second bound-powder material;

(c) dispensing a one or more particulate payload materials, the one or more particulate payload materials comprising a medicament, into the one or more empty cavities;

(d) placing the lidding body onto the upper surface of the peripheral wall, to form an internal cavity containing the one or more particulate payload materials; and

(e) securing the lidding body to the container body, thereby forming the rapidly-orodispersible dosage form.

15. The method according to Claim 14, wherein at least one of the container body and the lidding body further comprises an adhesive material, the adhesive material disposed on, and preferably applied to, at least a portion of a surface selected from the group consisting of the upper surface of the peripheral wall of the container body, the inner surface of the peripheral wall of the container body, a peripheral portion of an undersurface of the lidding body, an annular outer surface of a projection portion of the lidding body, and combinations thereof; and adhering the lidding body to the container body through the adhesive material.

16. The method according to Claims 14 or 15, wherein the adhesive material comprises a thermally-activated adhesive compound, and preferably the thermally-activated adhesive compound is component of the build powder material.