Question1: Mr. Holder has several issues that may affect the validity of the '123 patent, which include (1) enablement; (2) written description; (3) Definiteness; (4) novelty; (5) statutory bars; (6) obviousness and (7) Subject Matter.

First, Utility does not present a problem for the '123 patent. There is operable utility because the invention described actually works. This is demonstrated through Mr. Holder's use of the invention in real life and further through a firm description in his specification and claims, creating a firm claim that is not fantastic or impossible. There is beneficial/moral utility because under *Lowell v. Lewis*, the invention does not need to be better or the best thing on the market. It simply cannot be mischievous or immoral, which a water bottle insert is not. Finally, there is practical utility because under *Brenner* and *Fischer*, there is a specific and substantial benefit. There is a specific benefit because the invention has been refined and developed to a point where the benefit is currently available and there is a substantial benefit because the invention deals with a specific thing/problem and the invention is presently available.

Enablement may pose the first validity issue for the '123 patent. Under 35 U.S.C § 112(a), in order to be enabled, the invention must be set forth "in such full, clear, concise, and exact terms as to enable any person skilled in the art . . . to make and use the same." Essentially, enablement attempts to discern whether the inventor actually possesses the invention or whether the claim is reaching for inventions outside of those in the inventor's possession. Under the Incandescent Lamp patent case, in order to be enabled, a PHOSITA must not require undue experimentation in order to utilize the patent. Essentially, for broad claims, there needs to be some quality that runs through the broad classification that is being exploited in order to show

enablement. Here, there is a common thread between bottles, and for that matter, vessels, in that there will be some sized opening that must be measured and accounted for in order for the insert to fit within it without falling within it. Because size is easily determined, undue experimentation would not be needed for claims 1 or 2. Further, Mr. Holder will argue that enablement is met under the *Wands* factors: 1 – the '123 patent would not require a lot of experimentation to be implemented; 2 – the specification gives a sufficient amount of direction; 3 - there is at least one working example in the inventor's possession; 4 – the nature of the invention is not too complicated as to not be understood; 6 – the relative skill of the PHOSITA will not need to be high; and 8 – the breadth of the claims is not too expansive as to engulf what is outside of Mr. Holder's invention. However, because Mr. Holder is relying on store bought water bottles, he may need to disclose the starting materials for his invention, but he does disclose a bottle, which is readily available. Therefore, the patent is enabling.

The second major hurdle for validity of the '123 patent comes under written description. Under 35 U.S.C. § 112(a), "the specification shall contain a written description of the invention, and of the manner and process of making an using it." While enablement may allow for gap filling, meaning that enablement looks towards the reasonable PHOSITA, written description looks towards whether a PHOSITA would believe that the inventor had possession of the invention for a broad claim. Under *Regents of the Univesity of California v. Eli Lilly* and *Ariad v. Eli Lilly & Co.*, we look towards the written description to see if the claim is too broad and encompasses things outside of the inventor's actual invention. Here, Mr. Holder may have claimed a broad classification, but because of the common thread outlined above and the specification, Mr. Holder would argue that he had the broad classification in his head when he

made the invention. Similarly, if it seen as too broad, Mr. Holder would argue that he limited himself to bottles, which is what is seen as the best embodiment of his invention, and what he claimed in claim 1.

The third major hurdle to the '123 patent would be definiteness. Under 35 U.S.C. § 112(b), the claims at the end of the specification must particularly point out and distinctly claim the subject matter of the invention. Within claim 1 and claim 2, the term "sized to fit within the opening of the vessel, but not fall within it" may pose a problem because there is not uniformity among all bottles or all vessels. However, under Orthokinetics, the test for definiteness looks to whether a PHOSITA can easily obtain the dimensions required to practice the patent. Here, while water bottles are not standardized, it would not be challenging for a PHOSITA to measure and adapt the invention as to make it sized to fit within the opening of the vessel, but not fall within it. Therefore, definiteness should not be a problem for claims 1 and 2 as the PHOSITA could easily obtain the required measurements. Further, under Nautilis, a patent is invalid for indefiniteness if its claims, read in light of the specification, fail to inform a PHOSITA with reasonable certainty about the scope of the invention. Again, Mr. Holder would point to the specification and state that the scope of his invention is primarily limited to insertable containers into vessels for liquids, and if that fails, that his specification clearly shows a limitation to bottles, which should be definite enough to clear the definiteness hurdle.

The fourth major hurdle for the '123 patent is anticipation under 102(a) novelty. Under 35 U.S.C. § 102(a), a patent may be invalid if the claimed invention was known or used by others in this country or in a printed publication in or outside of this country. First, for 102(a), we

need to determine the critical date for this invention. For the purposes of anticipation, we look to the invention date. Here, the clear invention date is June 1, 2008, or the time when the idea is reduced to practice. Second, we need to see if the '123 patent was used or described before that date. For that we look to the prior art, which in this case means we look to the Dannon product and the NCI product.

The Dannon prior art may pose a problem due to its advertisement in the United States before the critical date. However its public use in England before the critical date doesn't matter because for purposes of 102(a), it needs to be publically used within the United States to count, and its preorders and use of products in the United States was after the critical date. Dannon's advertising may pose a problem because under *Jockmus*, printed publications are not limited to formal publications and therefore an advertisement may be prior art. But this must be looked at in terms of the *Klopfenstein* factors which requires a level of permanence for something to be a publication. For something to be permanent, it must be on display long enough to be appreciated in light of the sophistication of the product and the knowledge level of the target audience. If Dannon advertised using commercials, the display time may not be great enough for it to be considered a publication. If it was advertised through a physical newsletter, then it would depend on the level of description provided in the advertisement and whether the picture alone is enough to count as prior art. In the end though, Mr. Holder would argue that the Dannon yogurt does not meet the all elements rule required for anticipation. While the Dannon yogurt has devised a way to distribute mix-ins with its yogurt, the lid is attached to the top of the yogurt container, and is therefore not an insert sized to fit within the opening of the vessel and under a cap that covers both the insert and the vessel. Therefore, while an advertisement may count for anticipatory purposes, the Dannon yogurt does not meet the all elements rule.

For the NBI product, the use of the product cannot be until after Mr. Holder's critical date for anticipation because it was not reduced to practice through a prototype until September 1, 2009. Further, while 102(e) allows for a patent to be backdated to its filing date when issued, the filing date for NBI is after the critical date for Mr. Holder, and therefore, NBI cannot anticipate Mr. Holder's invention under 102(a) novelty because the focus is on prior art before the invention.

Mr. Holder's fifth hurdle to the validity of the '123 patent is statutory bars under 102(b). Under 102(b), the focus is on the year preceding the patent application, and therefore the critical date is January 1, 2009. Under 102(b), a patent may be invalid if the invention was patented or described in a printed publication (global inquiry) or in public use or on sale in this country more than one year before the patent application was filed.

Mr. Holder may have invalidated his patent through the public use of his invention more than one year before his application and even explained his invention publically. Under *Egbert*, public use does not even have to be recognized or viewable by the public, and here Mr. Holder showed and described his invention to random people in public. However, the key inquiry has shifted to whether the inventor relinquished control of the invention causing it to be a public use. Under *Moleculon*, Mr. Holder would argue that similar to the cube in that case, the invention was never given over to anyone in the public, but simply explained to them and therefore never left his possession to rise to a level of public use under *Moleculon* and *Beechcombers*. Further, Mr. Holder will argue that he was continuing to experiment with the use of his invention in order to ensure that it functions properly. Under *City of Elizabeth*, while the public may gain some benefit from the use (such as seeing the invention and having it described), experimental use will

not be a statutory bar. Further, under *Lough*, if there is evidence of an experimental use, then such use will not be a bar. Here, Mr. Holder will argue that because sole control lied with Mr. Holder and he was the sole person to use it, he would have noted the effectiveness or ineffectiveness of the invention and would therefore make any tweaks necessary that arose from his experimental use. Therefore, because he maintained sole possession and experimented with the invention, the public use was not before the critical date of January 1, 2009 and he would not have a statutory bar for his own personal use. Mr. Holder's argument may fail though because under *In re Smith*, experimental use must be towards the claimed features of the invention, and Mr. Holder's tests seem to focus on the preservation of fruit inside the insert, which is not a claimed feature of his invention. He has only claimed the actual insert as the invention and not the preservation of materials inside of the invention.

There is also a problem under 102(b) with the patent filed by NBI. While the NBI patent cannot anticipate for purposes of 102(a), as stated above, it can create a statutory bar if it is considered to have been patented more than one year before Mr. Holder's patent. Because we allow backdating for patents to the date on which it is filed, it is presumed that NBI patented on September 1, 2009. However, the NBI patent is not more than one year from the critical date of Mr. Holder's patent (January 1, 2009) and therefore does not bar his patent. Further, if the Dannon yogurt is seen as meeting the all elements rule, it would anticipate as well as operate as a statutory bar because it was on sale more than one year before Mr. Holder's filing. Under *Pfaff*, Dannon would have had a commercial offer to sell when it began taking preorders on December 1, 2008, and if all elements are met, it would be on sale in the united states before the 102(b) critical date. 102(c) and (d) would not pose a problem because Mr. Holder has not abandoned the invention through his experimental use and he has not filed a patent in any other country.

Mr. Holder's sixth hurdle for the validity of the '123 patent is obviousness. Under section 103, we apply the Graham test in order to see if the prior art in the field made the invention obvious (see KSR). Under Graham factor (1) we determine the scope and content of the prior art. Winslow states that for obviousness purposes, we only look to the pertinent references in analogous art before the invention date. Analogous art is art from the same field or endeavor or art that is reasonably pertinent to the particular problem. Here, the only art prior to the invention that would be looked at would be the Dannon yogurt through its advertisements prior to the 102(a) critical date. While the vogurt may not be in the same field or endeavor, it certainly would be reasonably pertinent to the particular problem being faced by Mr. Holder as it is using a way of separating out mixables. Further, while it may not have met the all elements test under 102(a), that is not important for obviousness purposes. Under Graham factor (2), we determine the differences between the prior art and the invention. The Dannon yogurt separates the mixables through a lid attached to the top of the container while Mr. Holder's invention involves a container that is inserted into the opening of the container and covered by a lid. Under Graham factor (3) we find the level of the PHOSITA, which would be a relatively average consumer here since it the invention is not complicated and solves a relatively simple predicament. Under Graham factor (4) we determine the obviousness or non-obviousness of the subject matter. Under KSR, the PHOSITA cannot be viewed as an automaton and is assumed to have creativity and know of the commercial pressures. Therefore, it seems relatively simple that given the prior art of the Dannon yogurt that a PHOSITA would envision flipping the lid over and inserting it into the container to save space and allow for a lid to be placed over it. However, Mr. Holder would argue that under *United States v. Adams*, that the unexpected benefits of fruit freshness and

easily delivering powders would make it non-obvious. Under Graham factor (5) we look towards other objective factors, where Mr. Holder would strengthen his non-obviousness claim by stating that there was a commercial need for this invention and that in all the time we have had water bottles, this invention has not already been invented, showing that it was non-obvious.

Mr. Holder's final hurdle for validity applies only to claim 2, and is based on subject matter. Claim 2 simply describes the natural phenomena solved by the invention in claim 1. Under *Promethius*, there needs to be some inventive step/unconventional activity to make the invention fall within protectable subject matter. Mr. Holder will argue that he is creating the environment for the natural phenomena to exist, i.e. making the bottle and the container so the container does not fall in, however, this does not seem to be enough to overcome the subject matter requirement for claim 2.

Question 2: Mr. Holder will most likely claim that NBI is infringing on both claims 1 and 2 of the '123 patent under 35 U.S.C. § 271(a) by making and offering to sell the Snackeez, and once commercialized for selling the Snackeez. First, due to the timeline of the two patents, a priority battle would ensue under 102(g) with Snackeez first claiming first to reduce to practice and then claiming earlier conception date. Under 102(g), the inquiry moves towards who conceived of the invention first and who reduced to practice first. Under the facts, reduction to practice would be evidence by the creation of a prototype because that would conclusively show a reduction of the idea to a form ready to be patented. This shows that Mr. Holder was the first to reduce to practice on June 1, 2008. However, if Mr. Holder argues that he was experimenting with the invention in order to get around 102(b) prior use, under *Baxter*, if the court sees the experimental use as

working towards a reduction to practice, then Mr. Holder may not be the first to reduce to practice. This experimental use seems to be post-reduction tinkering and therefore the important inquiry shifts to whether NBI or Mr. Holder was the first to conceive.

Under the facts, Mr. Holder conceived of the invention on January 1, 2008 while NBI started its product development on May 1, 2008. But Mr. Holder would have a problem proving he was the first to conceive. Under Brown v. Barbacid, there needs to be corroboration of inventive facts. Because Mr. Holder may have issues with proving his conception date, his conception date would collapse into his reduction to practice date and because NBI began its development before Mr. Holder's reduction to practice, and will most likely have multiple sources to confirm that, it may win the priority battle. Assuming Mr. holder was the first to conceive and the first to reduce to practice, and won priority under 102(g), Mr. Holder must show diligence and that he has not abandoned his invention. Diligence can be shown through the short amount of time between the conception and invention (mere months) and diligence up to the filing of a patent can be shown through its experimental use in order to perfect his invention. NBI, however, will focus on the year and a half years it took for Mr. Holder to file the patent application. Under *Peeler v. Miller*, a four year delay is per se abandonment, but a year and a half year is within that time limit. Therefore NBI will argue that time is too long and it was abandoned while Mr. Holder will argue that it is within the allowed time.

Further, NBI can argue that Mr. Holder limited his invention to only pertaining to bottles, and therefore does not cover cups. Under *The Gentry Gallery, Inc. v. The Berline Corp.*, while the written description typically doesn't limit claim scope, if the written description makes clear that the inventor is limiting their invention, the invention will be limited. Here, Mr. Holder

clearly claims "a bottle," not a cup, and further states in the written description that he has an improvement for water bottles that includes a bottle for holding liquids. While he states that the drawing only shows one embodiment of his invention, the invention is clearly an improvement for a bottle, not a cup. NBI produces a cup and therefore falls outside the scope of Mr. Holder's claims. While the preamble does not usually count towards the claim, here, the preamble gives meaning to the claim. Under *Merrill* and *Phillips*, the terms bottle and vessel must have separate meanings, and therefore, the preamble provides greater meaning to the claim. Since the term vessel is broad, the term bottle must be specific, and given its natural meaning, does not include cups. Therefore, the written description shows that the use of a vessel other than a bottle was outside the possession of the inventor at the time of the invention and patent application.

Mr. Holder will respond by stating that the Doctrine of Equivalents allows for NBI to infringe because under *Winans v. Denmead*, the cup performs the same function in the same way, with the same result as the bottle. While this may be true, under *Warner-Jenkinson*, when claim is narrowed, you cannot state that something that falls outside of the narrowed field still infringes. Here, while the claims were not narrowed by later amendment, the combination of the written description, the preamble, and the claim show that Mr. Holder chose to narrow his invention from applying broadly to a vessel, limiting it to a bottle. *Merrill* states that no slack will be given for poor drafting and because of this narrowing claim construction, Mr. Holder can no longer state that any vessel infringes; under *Gentry*, *Winans*, and *Warner-Jenkinson*, he is stuck to bottles and cannot claim the NPI cup infringes.

NPI may also make an inequitable conduct claim under *Therasenxe*, *Inc*. if there are facts to show by clear and convincing evidence that Mr. Holder had an intent to deceive (knew of the Dannon reference, knew it was material, and made a deliberate decision to withhold it) and that the Dannon reference would not have allowed the claim if it had been aware of the Dannon yogurt through a preponderance of the evidence.

Question 3: If Pat wants to sue due to infringement from NBI's customers, he would need to do so under 271(c) contributory infringement. 271(b) inducement requires a high level of knowledge, showing the infringer knew of the patent and knew that that induced act constitutes patent infringement. Under Global-Tech, willful blindness may show knowledge, but there is not enough information to show that NBI knew that its inducing action (selling the product as is) was sufficient to constitute infringement because no materials are provided with the sale of Snackeez to instruct someone on how to infringe. However, if Mr. Holder is able to show knowledge of the patent and that they took conscious steps to avoid confirming that the sole purpose of their product infringed Mr. Holder's patent, then they may be liable for infringement under inducement. However, it would be easier to show contributory infringement under 271(c), which requires Mr. Holder to show that NBI knew of the patent and knew of the infringing activity. Under Aro II, NBI doesn't need to know that the infringing activity actually infringed the patent in order to contributory infringe and under the facts, it would seem as though NBI would have at least known of the patent (since they both concern the same type of activity and they were both prosecuted at the same time) and NBI would have been aware of the activity, the use of the cups. Further, under C.R. Bard, Inc., you can get around contributory infringement by showing substantial non-infringing uses, but that is not present here since the sole purpose of the cups is

the infringing purpose. Thus, because NBI knows of the patent, knows of the infringing activity, and people are actually infringing (by using NBI's product), contributory infringement seems to be the better option.

Question 4: There are three main implications to the AIA first-to-file provisions applying to the '123 patent. First, the '123 patent may be invalid because if the '789 patent covers the same material as the '123 patent (which it most likely would). Mr. Holder was the second to file and NBI was first to file. Under the AIA, the first to file wins so long as the invention has not been publicly used, published, or is otherwise available prior to the filing of the application (except in the case of an inventor user/publisher, in which case the use/publishing cannot be more than one year before the filing). Second, the use of the phrasing or is otherwise available may affect what counts as prior art for the purposes of the '123 patent. For example, whether Mr. Holder's use after reduction to practice was otherwise available for public use and therefore prior art under 102(b) may change, the permanence requirement for the Dannon commercials may have changed, and if NBI did any advertising or demonstrations of its products before January 1, 2009, (or 2019), then the or otherwise available for public use may make it prior art without requiring permanence and bar the application. Finally, the AIA takes a global inquiry, and does not limit novelty and statutory bars to the United States in certain respects, and therefore, the Dannon yogurt would easily be prior art (if it arguably meets the all elements rule) and would be viewed as prior art for the obviousness analysis under the Graham factors.