CLOSER LOOK

MEMORANDUM

Intarcia secures $215 million in first close of major equity financing; Expect larger close in 4Q16; ITCA 650 NDA submission back to 4Q16 - September 20, 2016

Executive Highlights

- Intarcia Therapeutics announced that it has secured $215 million in the first close of a major equity financing, with a second, larger close expected in 4Q16. Including this close, over $1 billion in cash expected over next two to three years.
- Funding will largely go toward the ongoing development of the implantable GLP-1 agonist ITCA 650 (exenatide mini-pump), which, after a "very constructive and helpful" meeting with the FDA is expected for NDA submission in 4Q16.

Intarcia Therapeutics just announced that it has secured $215 million in the first close of a major equity financing, with a second, larger close expected in 4Q16. The company also confirmed plans to submit its New Drug Application (NDA) submission "in the next 30-60 days" for its implantable GLP-1 agonist ITCA 650 (exenatide mini-pump) for type 2 diabetes, following a "very constructive and helpful" pre-NDA meeting. While the submission (with this guidance) could be ever so slightly later than previous guidance of 3Q16, this is roughly in line with expectations and we applaud the decision to take a bit longer now to save time later - particularly for such an anticipated compound. This round of financing includes both new (Baillie Gifford, The Pritzker Organization, and Lucion Venture Capital Group) and old and old (Baupost Group LLC, Fidelity, Foresite Capital, RA Capital, and other large institutional investors and family offices) - others did not agree to be made public. This funding, plus the next (second) close in 4Q16 (estimated at approximately $300-400 million for a total of $600 million) and the >$500 million in major milestones anticipated over the next two to three years, should give the company well over $1 billion in cash. Post-FDA submission, Intarcia will also collect the third and final $100 million payment from the $300 million royalty/equity conversion it completed last year. Altogether, this amount provides Intarcia the runway to stay private through the first year of launch of ITCA 650 (which could occur as early as late 2017) and develop projects in the pipeline. Management shared that this funding will be applied toward the commercial preparations and launch plans for ITCA 650, including growing the company (Intarcia has been actively recruiting at the last few exhibit halls we've visited). We're impressed that Intarcia continues to attract large investments and clearly, many have high hopes for the company's disruptive technology, stemming from both their to-date unique approach to adherence plus their work in the burgeoning $4 billion GLP-1 market (remember this market just a decade ago was only $75 million!).

- **Preliminary plans are ongoing for a larger CVOT for ITCA 650.** This comes on the heels of the recent completion of the pre-approval FREEDOM-CVO cardiovascular outcomes trial; topline results released in May 2016 demonstrated non-inferiority for the primary endpoint of four-point MACE (cardiovascular death, non-fatal MI, non-fatal stroke, and hospitalization for unstable angina) with implantable exenatide mini-pump ITCA 650 vs. placebo (n=~4,000). Importantly, this trial was not designed to demonstrate superiority in cardiovascular outcomes, whereas the future one likely will be.
    - **In finalizing the design of this new CVOT, Intarcia will be paying particular attention to treatment duration, which it views as the "key driver of achieving cardiovascular benefit" and the major distinction between a CVOT safety trial (like FREEDOM-CVO) vs. a CVOT benefit trial.** Intarcia shared that the new CVOT will likely have a minimum treatment duration of 3.5 to 5 years (as opposed to just 12-14

months in FREEDOM-CVO) in order to optimize the chances of success for demonstrating CV benefit. This is partially a matter of the number of events required to gain statistical power, as well as the fact that it often takes several months for CV benefit differences to emerge (especially if the CV benefit is attributable to atherosclerotic improvements, as is suspected in the case of GLP-1 agonists). The Kaplan-Meier Curves from the LEADER trial for Novo Nordisk's Victoza (liraglutide), for instance, did not diverge until roughly 14-18 months.

- **Intarcia's implantable GLP-1 agonist option may enable greater adherence - an area we have been eager to see more work on.** Specifically, ITCA 650, by avoiding pills and injections, could offer major day-to-day patient convenience for patients and HCPs and unparalleled adherence for patients, a major "differentiation point" of the product, according to Intarcia management. We assume with a good launch, this could do a lot to expand the market, though the company is most focused on the long run, not just on a positive first year. Though it won't have a label of cardioprotection, at least in the US, we assume that access to GLP-1 is mostly determined by formularies and it sounds like Intarcia has done a lot of positive work on this front. Its own label, of course, may eventually be expanded and note cardioprotection, pending the results of the upcoming larger CVOT.
- **"When you truly innovate, by definition there isn't any analog.**" Intarcia management characterized the Medici technology underlying its implantable GLP-1 agonist as a "new category of medicines" that, in the case of diabetes, target the unmet patient needs that pills and injections have not been able to solve. Some may draw a comparison between ITCA 650 and the birth control implant, which is similarly posed as long-term alternative to contraceptive pills that offers built-in adherence. However, key to Intarcia's development platform is "customer experience" and design thinking, with a strong focus on how patients and providers engage with the product. Intarcia will also specifically target endocrinologists and primary care physicians with different strategies in order to optimally support these groups of physicians. The company expressed confidence that the superior user experience of their product will drive its short and long-term adoption and success. We certainly admire Intarcia's unique approach to developing more patient-friendly ways to treat chronic disease.
    - **Intarcia's funding will also support pipeline programs using the same Medici implantable drug-delivery platform featured in the company's GLP-1 agonist candidate.** Intarcia has multiple programs assessing implantable drug-delivery in diabetes, obesity, and autoimmune diseases. According to the company, all of this year's goals have been met, and active partnering discussions are ongoing in these various areas. Intarcia has previously shared that it is developing an implantable antibody-based SGLT-2 inhibitor in collaboration with Numab and potentially a glucagon or next-generation amylin from its acquition of Phoundry Pharmaceuticals, though the company emphasized that the programs are too early-stage to share many details at this time. At the EASD 2016 exhibit hall, it appeared that Intarcia is also open to harnessing its Medici platform for oncology indications.

-- by Brian Levine, Abigail Dove, Helen Gao, and Kelly Close