Orbsen in fundraising efforts to drive Phase II and potentially Phase IIb mesenchymal stromal cell therapy plans; Phase IIb start likely in mid to late 2021, exec says

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- Phase IIb could include COVID-19 focus depending on results
- Orbsen in talks with and open to CMOs to manage downstream manufacturing

Orbsen Therapeutics is in the midst of a fundraising round to support its Phase II mesenchymal stromal cells (MSC) studies in multiple indications, and could potentially expand the round to cover a planned Phase IIb trial, said CEO Larry Couture.

Couture did not comment on the exact amount being raised, but said while the ongoing Phase II funding goal is modest, the next round will be larger and likely be in the tens of millions. In the past, Orbsen has looked to retail investors, and received nondilutive funding for its research and development program through several grants, but is only now transitioning into seeking institutional investors and strategic partners. Hence, Couture declined to classify the fundraising efforts as part of a particular series.

Orbsen is working with a third-party financial services firm to put together the expanded round, he said. The economic collapse following the current pandemic has had a negative effect on its fundraising ability, but Orbsen could be back at discussions in a few months and branch out into Europe and Asia, said Couture. The fundraising plans are not etched in granite and while the company plans to take only one study through to Phase IIb, if that is successful, it could move to a second or third indication, said Couture. The company is not reinventing its fundraising strategy specifically because of COVID-19, he added.

ORBCEL clinical strategy

The Galway, Ireland-based company has five programs, including a recently initiated one in patients with acute respiratory distress syndrome (ARDS) due to COVID-19. All are based on the platform MSC therapy ORBCEL, derived from umbilical cord tissue. In addition to the Phase I/II ORBCEL ARDS study, dubbed as REALIST (NCT03042143), Orbsen has ongoing clinical trials in diabetic foot ulcers, diabetic kidney disease (DKD), and primary sclerosing cholangitis, and a fifth study in autoimmune conditions in the works. Orbsen is not positioning itself as a COVID-focused company but rather a stromal cell-company for which COVID-19 is one of the indications, said Couture.

Even though the Phase II REALIST trial plans to enroll 60 patients, Couture talked about the possibility of building in an interim analysis point in the study, such that if the results are heavily skewed in favor of the product after 35 patients have enrolled, the data could be unblinded. However, running the trial to its full course would objectively make the

study stronger, he said. Orbsen plans to wait for all trials to read out by mid-2021 or YE21 and pick the indication that may be best to pursue for a Phase IIb study, said Couture.

Even though one of Orbsen's DKD trial sites in Bergamo, Italy — one of the epicenters of the COVID-19 epidemic — was interested in conducting a study to evaluate ORBCEL in COVID-19 patients, the region was imploding with cases and unable to do so, said Couture. Northern Ireland, where one of the REALIST sites is recruiting, has not had a crush of COVID cases yet, but the trial enrollment will be manageable and should complete in the next 6–9 months, said Couture.

Scaling up ORBCEL manufacturing protocols

In terms of manufacturing, the company plans to manage the upstream portion of ORBCEL production since it involves trade secrets, but is in talks with CMOs to do a scale-up of their downstream manufacturing capabilities, said Couture. Through the Phase IIb, Orbsen will manage the entire manufacturing process but it plans to bring a CMO online during scale up-operations during the Phase IIb plans, said Couture. The company would be open to CMOs reaching out to Orbsen for this, but the company has already reached out to relevant ones in Europe and the UK, and two that have operations in the US, he added.

Orbsen does plan to conduct part of the Phase IIb study in the US, and may even consider opening a parallel study in the US due to the ongoing REALIST program, said Couture. However, in terms of manufacturing for a potential study in the US, the FDA does not allow the import of cells from the UK due to a rule established in the 1990s due to mad cow disease. This issue will have to be resolved before initiating a study, said Couture.

Orbsen's platform has identified markers on the stromal cells subpopulation among cells that have immunomodulatory activity, which does not include fibroblasts, preadipocytes and other cells that are usually found in MSC preparations, said Couture. This allows the platform to get a near-pure, well-characterized population of cells. Furthermore, using umbilical cords as a source allows the donors to all be age-matched as opposed to bone marrow, he added. Also, the fact that the cell therapy is not genetically engineered makes it favorable to regulators, who want to fast track such cell therapies, said Couture.

by Manasi Vaidya in New York

Region:	Europe; North America
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Topic:	CMO; Financing; Product Development Exec Updates
Company Name:	Orbsen Therapeutics Ltd
Indication:	Coronavirus Disease 2019 (COVID-19)
Drug(s)/Molecule(s):	Stem Cell Therapy for Gastrointestinal, Infectious and Respiratory Disease

Trial Identifier	Trial Phase	Trial Status
GDCT0270827	Phase I/II	Ongoing, recruiting
GDCT0385597	Phase II	Planned