

**Biophytis SA (ALBPS.PA)**  
**Rating: Buy**

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**Powered by Plants; Unlocking Phytochemical Potential; Initiating at Buy and €10 Target**

Stock Data	12/20/2017
Price	€4.12
Exchange	PSE
Price Target	€10.00
52-Week High	€7.70
52-Week Low	€2.44
Enterprise Value (M)	€51.7
Market Cap (M)	€55
Public Market Float (M)	6.2
Shares Outstanding (M)	13.4
3 Month Avg Volume	404,485

**Balance Sheet Metrics**

Cash (M)	€4.4
Total Debt (M)	€1.1
Total Cash/Share	€0.33
Book Value/Share	€0.99

General: Biophytis reports semiannually; we show our projections quarterly.

**EPS Diluted**

Full Year - Dec	2016A	2017E	2018E
1Q	--	--	€(0.28)
2Q	€(0.60)	€(0.71)A	€(0.28)
3Q	--	€(0.28)	€(0.30)
4Q	€(0.68)	€(0.23)	€(0.29)
FY	€(1.28)	€(1.16)	€(1.16)


**Phytochemical platform with lead agents targeting large markets.**

Biophytis, an emerging biotechnology company based in Paris, France, focuses on developing next-generation therapeutics based on phytochemicals, or compounds derived from plants. The two lead molecules, Sarconeos and Macuneos, are aimed at sarcopenia and dry age-related macular degeneration (AMD), respectively. The sarcopenia condition, a disorder involving skeletal muscle degeneration, weakness and movement impairment occurring primarily in elderly individuals, has no current approved therapy and afflicts over 17M people in just the U.S. and Europe. Dry AMD, which accounts for over 85% of all AMD cases, also remains largely untreated and affects nearly 30M people in the U.S. and Europe. Both of these diseases are likely to increase in prevalence given the aging demographics of the populations in developed countries.

**Clinical proof-of-concept data shows safety and activity.** While Sarconeos and Macuneos are both still several years away from market entry, these compounds have shown favorable safety and tolerability in multiple human clinical trials. In addition, preclinical proof-of-concept data in animal models have shown that Sarconeos can lower lipids and stimulate muscle-building, while Macuneos preserves retinal function and the number of photoreceptor layers in the eye. In an exploratory Phase 2 trial in obese volunteers, Sarconeos compensated for the muscle breakdown typically seen with a low-calorie diet, while accentuating the diet's impact on both android fat mass and insulin resistance. No serious adverse events (SAEs) were seen at doses of up to 900 mg per day, underscoring the drug's benign safety profile and wide therapeutic index. Macuneos has shown safety with no SAEs in a 12-week, 47-subject Phase 1 study.

**Relatively rapid and cost-effective clinical development pathways.**

In our view, both Sarconeos and Macuneos could be developed via accelerated clinical paths, with Sarconeos slated to complete Phase 2b testing in late 2018 or early 2019 and Macuneos likely to yield Phase 2b results in 2H 2021. We are assuming that Biophytis would likely partner Sarconeos for pivotal development, and that the compound could be launched in 2022 with the company's partner spearheading commercialization. Peak sales at very low penetration rates (~2%) could exceed \$2B. For Macuneos, Biophytis management have indicated their desire to retain control of the compound and self-commercialize. We believe that Macuneos could reach peak sales of over \$1B, which appears reasonable relative to the sales of approved drugs for wet AMD.

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**Conservative metrics highlight upside potential.** We apply a discounted cash flow (DCF) approach to both Sarconeos and Macuneos. Our probability of success for both agents is 20%, which we consider conservative given favorable clinical safety data and observed indications of efficacy. We utilize a 15% discount rate and 0% terminal growth rate, while assuming that the commercial window for both agents would extend into the 2032-2033 time frame. This yields a combined enterprise value of \$166M, which after factoring in outstanding debt yields a market value of the firm of \$165M, corresponding to a price target of €10 per share based on 14.7M shares outstanding. Risks associated with attaining our price target are detailed on pp. 19 and include: (1) regulatory unpredictability; (2) competitive threats; (3) potential partnership dependence; (4) financial; and (5) other industry related circumstances.