
**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION**

Washington, D.C. 20549

FORM 6-K

**REPORT OF FOREIGN PRIVATE ISSUER PURSUANT TO RULE 13a-16 OR 15d-16 UNDER THE SECURITIES
EXCHANGE ACT OF 1934**

For the month of January 2018

Commission File Number: 001-36826

ADVANCED ACCELERATOR APPLICATIONS S.A.

(Exact name of registrant as specified in its charter)

20 rue Diesel

01630 Saint Genis Pouilly, France

(Address of principal executive office)

Indicate by check mark whether the registrant files or will file annual reports under cover of Form 20-F or Form 40-F:

Form 20-F Form 40-F

Indicate by check mark if the registrant is submitting the Form 6-K in paper as permitted by Regulation S-T Rule 101(b)(1):

Yes No

Indicate by check mark if the registrant is submitting the Form 6-K in paper as permitted by Regulation S-T Rule 101(b)(7):

Yes No

SIGNATURE

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

ADVANCED ACCELERATOR APPLICATIONS S.A.

By: /s/ Heinz Mäusli
Name: Heinz Mäusli
Title: Chief Financial Officer

Date: January 22, 2018

ADVANCED ACCELERATOR APPLICATIONS S.A.

EXHIBIT INDEX

Exhibit No.	Description
99.1	Press Release issued by the Company on January 22, 2018.



PRESS RELEASE

Advanced Accelerator Applications Announces Completion of \$3.9 Billion Novartis Tender Offer

Novartis Global Oncology Expertise to Enhance Launch of Lutetium Lu 177 Dotatate (LUTATHERA®) and Accelerate Development of Theragnostic Pipeline

January 22, 2018, Saint-Genis-Pouilly, France - Advanced Accelerator Applications S.A. (NASDAQ:AAAP) (“AAA” or the “Company”), a leader in nuclear medicine theragnostics, today announced that a subsidiary of Novartis AG (NYSE: NVS) (“Novartis”), Novartis Groupe France S.A. (“Purchaser”), has successfully completed a tender offer to purchase all of the outstanding ordinary shares (“Ordinary Shares”), including Ordinary Shares represented by American Depositary Shares (“ADSs”), of AAA for a price of USD 41.00 per Ordinary Share and USD 82.00 per ADS, in each case, payable net to the seller in cash, without interest (the “Offer”). The Offer and withdrawal rights expired as scheduled at 12:00 midnight, New York City Time, on January 19, 2018. According to Novartis, The Bank of New York Mellon, as ADS tender agent for the Offer, and Banque Transatlantique S.A., as Ordinary Shares agent for the Offer, have advised that, as of the expiration of the Offer, 94,380,927 Ordinary Shares (including 84,499,944 Ordinary Shares represented by ADSs and 711,834 Ordinary Shares delivered through Notices of Guaranteed Delivery) were validly tendered and not properly withdrawn. Together with Ordinary Shares underlying the company stock options and warrants that have been exercised pursuant to the cashless exercise facility offered to the beneficiaries, they represent approximately 97% of (i) all Ordinary Shares (including Ordinary Shares represented by ADSs) then outstanding (including any Ordinary Shares held in escrow), plus (ii) all Ordinary Shares issuable upon the exercise, conversion or exchange of any options, warrants, convertible notes, stock appreciation rights or other rights to acquire Ordinary Shares then outstanding, regardless of whether or not then vested, plus (iii) any Ordinary Shares issuable pursuant to arrangements with the former shareholders of BioSynthema, Inc., a business acquired by AAA in 2010. All conditions to the Offer have been satisfied or waived, and Purchaser has accepted for payment, and expects to promptly pay for, all Ordinary Shares and ADSs validly tendered and not properly withdrawn pursuant to the Offer.

Mr. Stefano Buono, Chief Executive Officer of AAA, commented, *“The AAA team is excited to join the Novartis family. Novartis’ strong presence in the global oncology community will help AAA optimize the success of lutetium Lu 177 dotatate (LUTATHERA®) and provide the best possible care for NET patients.”*

“We believe AAA’s unique radiopharmaceutical platform and theragnostic approach are complementary to Novartis’ existing oncology offerings. Together, we hope to accelerate the development of AAA’s pipeline and bring further innovation to the oncology patient community.”

Commencement of Subsequent Offering Period

Additionally, Purchaser is commencing a subsequent offering period as of January 22, 2018, during which tenders of Ordinary Shares and ADSs (together, the “Company Shares”), will be accepted. This subsequent offering period will expire at 12:00 midnight, New York City time, on January 31, 2018 (which is the end of day on January 31, 2018), unless extended. Any Company Shares properly tendered during the subsequent offering period will be immediately accepted for payment, and the holders of such Company Shares will be promptly paid the same price per Ordinary Share and ADS, as applicable, that was paid in the initial offer period of the Offer. Purchaser will not pay any interest on the purchase price for Ordinary Shares or ADSs tendered during the initial offer period or the subsequent offering period. Company Shares tendered during the subsequent offering period may not be withdrawn. In addition, no Company Shares validly tendered during the initial offer period may be withdrawn during the subsequent offering period.

Intention to Delist AAA American Depositary Shares from NASDAQ, Terminate Registration of Ordinary Shares and Suspend U.S. Reporting Obligations

AAA today announced that it has notified The Nasdaq Stock Market of its determination to withdraw the ADSs from listing on the NASDAQ Global Select Market (“NASDAQ”) and to withdraw the registration of the Ordinary Shares under Section 12(b) of the Securities Exchange Act of 1934, as amended (the “Exchange Act”). AAA intends to file a Form 25 with the Securities and Exchange Commission (the “SEC”) no earlier than 10 days from today, to effect the delisting and withdrawal from registration under the Exchange Act. The Form 25 will become effective 10 days after it is filed, at which point the ADSs will no longer trade on NASDAQ. AAA also intends to file a Form 15 with the SEC to terminate registration of the Ordinary Shares under Section 12(g)(4) of the Exchange Act and suspend AAA’s duty to file reports under Section 15(d) of the Exchange Act. AAA has not arranged for the listing of ADSs on any other national securities exchange, and has not made any arrangements for the quotation of ADSs in a quotation medium (as defined under applicable SEC rules and regulations).

AAA has determined to withdraw the ADSs from listing on NASDAQ and to withdraw the registration of the Ordinary Shares under Section 12(b) of the Exchange Act because the Offer has been completed and Purchaser owns approximately 97% of all outstanding Ordinary Shares (including Ordinary Shares represented by ADSs) on a fully-diluted basis, and (a) to minimize annual legal and accounting expense relating to public reporting obligations and related compliance with the provisions of Sarbanes-Oxley Act, (b) to eliminate the annual expense of listing fees, and (c) in light of the likely minimal daily trading volume of the ADSs after completion of the Offer.

Changes in the AAA Board of Directors

AAA today announced changes relating to the new Board of Directors of AAA (the “Board”) following the closing of the Offer.

Five of AAA’s existing Board members have resigned and four new Board members have been coopted.

The resigning Board members are:

Claudio Costamagna
Stefano Buono
Christine Mikail Cvijic
François Nader
Léopoldo Zambelletti

The coopted Board members are:

Frédéric Collet
Augusto Lima
Susanne Schaffert
Jessica Toepfer

Claudio Costamagna has resigned from his office as Chairman of the Board of AAA, Stefano Buono has resigned from his office as *directeur général* of AAA and Gérard Ber and Heinz Mäusli have each resigned from his office as *directeur général délégué* of AAA. The Board has appointed Susanne Schaffert as the new Chairman of the Board and *directeur général* of AAA.

Lutetium Lu 177 dotatate (LUTATHERA®)

In September 2017, AAA announced European approval of the marketing authorization for lutetium Lu 177 dotatate* (LUTATHERA®) for the treatment of unresectable or metastatic, progressive, well differentiated (G1 and G2), somatostatin receptor positive gastroenteropancreatic neuroendocrine tumors (GEP-NETs) in adults. A New Drug Application is currently under review by the US Food and Drug Administration. The Prescription Drug User Fee Act (PDUFA) action date is January 26, 2018.

* USAN: lutetium Lu 177 dotatate/INN: lutetium (¹⁷⁷Lu) oxodotreotide.

About Advanced Accelerator Applications S.A.

Advanced Accelerator Applications (NASDAQ:AAAP) is an innovative radiopharmaceutical company developing, producing and commercializing molecular nuclear medicine theragnostics. AAA's theragnostic platform is based on radiolabeling a targeting molecule with either gallium Ga 68 for diagnostic use, or lutetium Lu 177 for therapy. AAA's first theragnostic pairing for neuroendocrine tumors includes diagnostic drugs NETSPOT® in the US and SomaKit TOC™ in Europe; and therapeutic USAN: lutetium Lu 177 dotatate/INN: lutetium (¹⁷⁷Lu) oxodotreotide (LUTATHERA®), which is approved for use in Europe and currently under review with the FDA. Additional theragnostics in development target gastrointestinal stromal tumors (GIST), and prostate and breast cancer. AAA is also an established leader in molecular nuclear diagnostic radiopharmaceuticals for PET and SPECT, mainly used in clinical oncology, cardiology and neurology. Headquartered in Saint-Genis-Pouilly, France, AAA currently has 20 production and R&D facilities, and more than 600 employees in 13 countries (France, Italy, the UK, Germany, Switzerland, Spain, Poland, Portugal, The Netherlands, Belgium, Israel, the US and Canada). AAA reported sales of €109.3 million in 2016 (+23% vs. 2015) and €106.4 million for the first 9 months of 2017 (+31% vs. first 9 months of 2016). AAA is listed on the Nasdaq Global Select Market under the ticker "AAAP". For more information, please visit: www.adacap.com.

Additional Information

This announcement is for informational purposes only and is neither an offer to purchase nor a solicitation of an offer to sell securities. On December 7, 2017, Purchaser and Novartis filed a Tender Offer Statement on Schedule TO with the SEC and AAA filed the Schedule 14D-9 with the SEC, in each case with respect to the Offer. The Tender Offer Statement (including the Offer to Purchase, accompanying Ordinary Share Acceptance Form and American Depositary Receipts letter of transmittal and other offer documents) and the Solicitation/Recommendation Statement contain important information that should be read carefully before any decision is made with respect to the Offer. Those materials and all other documents filed by, or caused to be filed by, Novartis, Purchaser or AAA with the SEC will be available at no charge on the SEC's website at www.sec.gov. The Schedule TO Tender Offer Statement and related materials may be obtained for free under the "Investors—Financial Data" section of Novartis website at <https://www.novartis.com/investors/financial-data/sec-filings>. The Schedule 14D-9 and such other documents may be obtained for free from the Company under the "Investor Relations" section of the Company's website at <http://investorrelations.adacap.com/>.

Cautionary Statement Regarding Forward-Looking Statements

This press release contains forward-looking statements. All statements, other than statements of historical facts, contained in this press release, including statements regarding the Company's strategy, future operations, future financial position, future revenues, projected costs, prospects, plans and objectives of management, are forward-looking statements. The words "anticipate," "believe," "estimate," "expect," "intend," "may," "plan," "predict," "project," "target," "potential," "will," "would," "could," "should," "continue," and similar expressions are intended to identify forward-looking statements, although not all forward-looking statements contain these identifying words. Forward-looking statements that appear in a number of places in this press release include the Company's current expectation regarding future events and various matters, including the transaction, expected timing of filings with the FDA and EMA, and approval dates. These forward-looking statements involve risks and uncertainties that may cause actual results, events or developments to be materially different from any future results, events or developments expressed or implied by such forward-looking statements. Such factors include, but are not limited to, the ability of the parties to complete the transaction on a timely basis or at all, changing market conditions, the successful and timely completion of clinical studies, the timing of our submission of applications for regulatory approvals, EMA, FDA and other regulatory approvals for our product candidates, the occurrence of side effects or serious adverse events caused by or associated with our products and product candidates; our ability to procure adequate quantities of necessary supplies and raw materials for USAN: lutetium Lu 177 dotatate/INN: lutetium (¹⁷⁷Lu) oxodotreotide (LUTATHERA[®]) and other chemical compounds acceptable for use in our manufacturing processes from our suppliers; our ability to organize timely and safe delivery of our products or product candidates by third parties; any problems with the manufacture, quality or performance of our products or product candidates; the rate and degree of market acceptance and the clinical utility of USAN: lutetium Lu 177 dotatate/INN: lutetium (¹⁷⁷Lu) oxodotreotide (LUTATHERA[®]) and our other products or product candidates; our estimates regarding the market opportunity for USAN: lutetium Lu 177 dotatate/INN: lutetium (¹⁷⁷Lu) oxodotreotide (LUTATHERA[®]), our other product candidates and our existing products; our anticipation that we will generate higher sales as we diversify

our products; our ability to implement our growth strategy including expansion in the US; our ability to sustain and create additional sales, marketing and distribution capabilities; our intellectual property and licensing position; legislation or regulation in countries where we sell our products that affect product pricing, taxation, reimbursement, access or distribution channels; regulatory actions or litigation; and general economic, political, demographic and business conditions in Europe, the US and elsewhere. Except as required by applicable securities laws, we undertake no obligation to publicly update or revise any forward-looking statements, whether as a result of new information, future events or otherwise.

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