

Press release

2016 ANNUAL RESULTS: STRATEGIC FOCUS ON TRACK - PROMISING RESULTS IN THE FIELDS OF HEALTH, NUTRITION AND COSMETICS

- **Cash position of €9.3 million, and net loss down 1% to €6.3 million**
- **Strategic focus on high value-added applications in the healthcare, nutrition, and cosmetics fields**
- **The operational and legal reorganisation has been completed, via acquiring full control of DEINOBIOTICS, and the reorganisation of the Board of Directors.**

Montpellier, France, 30 March 2017 (8:00 pm CEST) – DEINOVE (Alternext Paris: ALDEI), a biotechnology company that discovers, develops, and produces high-value added compounds from rare bacteria, including *Deinococcus* bacteria, announced today that its Board of Directors had reviewed and approved the 2016 annual financial statements. Furthermore, the Board has convened the **General Meeting on 16 May 2017**.

The net loss in 2016 was €6,279k, compared with a loss of €6,356k in the previous year. Income for the year increased, thanks to the completion of various milestones in the R&D programmes, and to the progress of the collaborative projects, while operating expenses remained unchanged.

The net cash position amounted to +€9.3 million at 31 December 2016, compared with +€12.4 million at 31 December 2015. DEINOVE received €3.4m in milestone payments from Bpifrance and ADEME (the French Environment and Energy Management Agency) during the 2016 financial year, as well as a total of €1.6m in R&D Tax Credit (CIR) for 2015. The Company also raised €0.8m via the equity line funding arranged with Kepler Cheuvreux in December 2014. DEINOVE believes that it has the necessary cash resources to guarantee its financing until the end of the 1st quarter of 2018, without resorting to Tranches 3 and 4 of the equity line funding.

The strategic decision to focus the Company's business activities on higher value-added applications in the healthcare, nutrition, and cosmetics sectors was reflected in two major operating changes:

- The merger of R&D operations between DEINOVE and its subsidiary DEINOBIOTICS aimed at researching new antibiotics. The teams are now fully operational, while the acquisition of a 100% interest in DEINOBIOTICS was finalised in early 2017.
- Meanwhile, the bio-ethanol (biofuel) research programme was suspended, as this commodity product has been negatively affected by the low oil price level.

“After assuming the chairmanship in January, I was impressed by the responsiveness and resilience of DEINOVE's teams in 2016, when challenges were redefined, operations reorganised, employees reassigned and programmes launched, this in less than 6 months” said Charles Woler, the Chairman of DEINOVE. *“DEINOVE is therefore beginning 2017 with a new look: the operational and legal integration of DEINOBIOTICS has been completed, while the reorganisation of the Board of Directors, where the*

members' backgrounds are now much more focused on pharmaceuticals and specialty markets, adds the finishing touch to this change."

Emmanuel Petiot, DEINOVE's Chief Executive Officer, added: "The speed at which synergies between DEINOVE and DEINOBIOTICS have emerged, together with the development of our industrial specialty projects in both the animal nutrition and cosmetics sectors over the past few months, has emphasised the sense of the decision that we took in December last year. Furthermore, this decision has been understood and encouraged by all of our partners. It was in keeping with both the economic environment and a major healthcare need. The threat posed to world health by increasing resistance to antibiotics is such that we are confident in our ability to find financial support for our developments. Our teams are motivated, and focused on achieving fast results. They are already working on discovering new antibiotics that will genuinely make a difference".

SUMMARY FINANCIAL DATA

(€ '000s)	2016	2015
Total operating revenues	793	492
Total operating costs	8,486	8,457
o/w R&D costs	6,608	6,590
o/w G&A costs	1,877	1,867
Operating profit / loss	-7,692	-7,965
Financial result	15	-14
Current pre-tax profit / loss	-7,677	-7,979
Non-recurring items	283	-10
Income tax (R&D Tax Credit)	-1,115	-1,633
Profit / loss for the year	-6,279	-6,356

Net financial position	9,316	12,432
o/w financial investments ¹	0	0
o/w term deposits (maturity < 1 year)	0	0
o/w cash instruments (maturity < 3 months)	0	0
o/w cash on hand	9,316	12,432
(o/w financial debt)	0	0
Total assets	13,904	17,327
TOTAL SHAREHOLDERS' EQUITY	11,748	14,593
o/w equity	2,570	8,096
o/w conditional advances	9,178	6,497

¹ Excluding the liquidity agreement items (cash and treasury shares), deposits & guarantees, and ongoing security purchase costs.

FINANCIAL RESULTS FOR THE 2016 FINANCIAL YEAR

The 2016 net result is a net loss of €6,279k, which was a slight improvement compared with the loss of €6,356k in 2015.

Operating income

DEINOVE received €793k in operating income (€492k in 2015), which came from invoices relating to collaborative research agreements with industrial partners, and from grants from Bpifrance relating to achieving the 4th key milestone in the DEINOL Programme, as well as for the World Innovation Competition, where the Company received an award for its DEINOPLAST Programme.

Meanwhile, operating costs remained stable at €8,486k (€8,457k in 2015). The sub-contracting expenses relating to the research programmes decreased, while operating expenses (primarily rents and salaries) increased, in line with the extension of the laboratories (in late 2015) and the rise in the headcount (average increase of 3 FTEs).

R&D expenditure accounted for 78% of total operating costs, a level that was equivalent to the one in 2015.

Net income

Net financial income showed a positive balance of €15k compared with a loss of €14k in 2015. It specifically included a negative balance of €31k relating to the liquidity agreement, and a positive balance of €50k from interest on investments and bonds.

Non-recurring items showed a gain of €283k, compared with a loss of €10k in 2015, and were primarily generated by the recognition of exceptional income (€224k) relating to a write-off of receivables by Bpifrance following the acknowledgement that the DEINOPHARM Programme had failed, together with a capital gain of €50k resulting from the disposal of shares in CARBIOS on the market.

Corporate income tax related almost exclusively to R&D Tax Credit. The Company has estimated that credit at €1,115k compared with €1,641k in 2015. This difference is primarily explained by the fact that the Company received more public funding in 2016.

FINANCIAL POSITION

The financial needs during the year primarily concerned operating expenditure, which amounted to €7,750k (excluding provisions for depreciation amounts), and investments in equipment and software, which amounted to €770k. DEINOVE also granted a €500k loan to DEINOBIOTICS SAS, via the subscription to ordinary bonds.

The Company received public funding (from ADEME and Bpifrance) amounting to €3,352k, and a R&D Tax Credit of €1,641k over the same period, and raised €780k (net of fees) via the equity line funding arranged with KEPLER CHEUVREUX in December 2014.

The Company's net financial position amounted to €9.3 million at 31 December 2016. DEINOVE believes that it has the necessary resources to ensure its financing until the end of the 1st quarter of 2018, without recourse to Tranches 3 and 4 of the equity line funding arranged in December 2014.

HIGHLIGHTS

DEINOVE continued to make the most of its strain bank, to develop its metabolic and fermentation engineering platform, and to advance its research programmes during the financial year.

Strategic focus and new organisational structure

Strategic focus

At its meeting on 27 September 2016¹, the Board of Directors decided to focus Deinove's business activities, and to concentrate its resources on high value-added applications in the healthcare, nutrition, and cosmetics sectors, with the aim of getting closer to the generation of income. This decision was specifically reflected in:

- The reorganisation of DEINOVE's R&D teams in order to incorporate the operations relating to the DEINOBOTICS Programme;
- The acquisition of 100% of the shares in DEINOBOTICS SAS by DEINOVE via a contribution in kind and a corresponding capital increase. This transaction was completed on 5 January 2017 (See post-balance sheet events);
- The allocation of DEINOVE's other resources to continuing the development of carotenoids (Deinochem Project), programmes conducted in partnership with Avril and Flint Hills Resources, and other collaborative programmes, with the primary goal of generating income within as short a time frame as possible;
- The launch of an extensive programme involving the screening of DEINOVE's strain library, which is expected to lead to the identification of specialty compounds in the healthcare, nutrition, and cosmetics sectors.

Operational integration of Deinobiotics

Cooperation between DEINOVE and DEINOBOTICS was increased following this decision. A portion of the DEINOVE teams is now dedicated to identifying and developing antibiotic leads, with the main goals of:

- Reinforcing the strain library by gathering and classifying new rare bacteria;
- Identifying strains that are of interest in terms of their antibiotic activity;
- Molecular biology, in order to optimise the strains and the compounds to meet the needs of DEINOBOTICS' pharmaceutical teams;
- Optimising the fermentation processes for strains that are of interest, and producing samples for effectiveness and pharmacology tests;
- Developing protocols for extracting and purifying the compounds produced.

The DEINOVE teams are working closely with the DEINOBOTICS teams and the Charles Violette Institute (Lille 1 Science and Technology University), which are meanwhile responsible for:

¹ Press release dated 29 September 2016.

- Identifying the chemical structures of antibiotics of interest, in order to assess their innovative nature and their action mechanism;
- Optimising molecules via enzymology and/or medicinal chemistry;
- Assessing the antibacterial and anti-fungal effects, and the non-toxicity of the molecules identified, including conducting *in vitro* and *in vivo* tests.

This new organisational structure has been fully operational since late 2016.

Progress of the programmes

Antibiotics Programme (DEINOBOTICS)

In 2016, the DEINOBOTICS subsidiary identified a first candidate that displays a particularly interesting spectrum of activity and a novel chemical structure. This candidate has been the subject of two patent applications (See post-balance sheet events), which have been published, and is currently being optimised and assessed.

Research is continuing in order to identify other innovative antibiotic molecules using the strain library, in order to build a true pipeline effectively addressing the concern of multi-resistance. A preclinical project manager, Dr. Bernard Scorneaux, has been hired in order to coordinate the development of new drug candidates (See post-balance sheet events).

Carotenoid Programme (Deinochem)

In February 2016, DEINOVE announced that it had extended the number of target molecules, which now include five carotenoids produced at the lab scale, and yields that have been improved by a factor of 6 to 8 depending on the molecule². The Company aims to market its first batches of target compounds in 2018.

DEINOVE announced that it had validated the 2nd key milestone of the Carotenoid Programme in June, which gave rise to the payment by ADEME of a repayable advance of €1.5m³. The deliverables achieved confirmed the progress made in the development of *Deinococcus* strains that are hyperproductive of carotenoids.

DEINOVE also announced that it had validated the 3rd key milestone of the Carotenoid Programme in December, which gave rise to the payment by ADEME of a repayable advance of €0.8m⁴. This new key milestone validates the technical progress made in developing the carotenoid production process. The target thresholds for productivity and yield have been reached using optimized *Deinococcus* strains on the laboratory scale.

Accordingly, DEINOVE announced in November that it had selected Processium, an industrial process engineering firm headquartered in Lyon that works in the chemistry and biotech fields⁵. The experts at Processium will have three major missions with DEINOVE:

² Press release dated 8 February 2016.

³ Press release dated 14 June 2016.

⁴ Press release dated 14 December 2016.

⁵ Press release dated 14 November 2016.

- finalising and validating an industrial process for extracting carotenoids from the fermentation medium, in order to obtain a marketable product;
- transposing the production process developed by Deinove from the laboratory to industrial production;
- identifying and selecting sub-contractors who can start production quickly.

Indeed, DEINOVE is aiming to market carotenoids directly to industrial companies in its target markets, but is not planning to develop its own manufacturing tool, and prefers to sub-contract production, including the large-scale fermentation, extraction, purification, and formulation stages.

Muconic Acid Programme (Deinoplast)

DEINOVE won the first phase of the second edition of the Worldwide Innovation Challenge for its R&D program Deinoplast (biobased production of muconic acid), and was therefore awarded a grant of €200k⁶.

The World Innovation Competition was launched by the French Government in 2013, in order to enable the emergence of innovative projects in sectors that are strategic for France. Deinoplast was selected in the "Plant protein-based food products and new biobased materials" topic.

This award recognises the quality of DEINOVE's technology platform, and its innovative nature.

2 G Biofuels Programme (Deinol)

Following the Board of Directors' decision to suspend the Deinol R&D programme dedicated to 2G biofuels, the various partnerships relating to this programme were terminated, including the partnerships with Abengoa, SUEZ, MBI, Tyton, and Arbiom.

The employees and the R&D equipment dedicated to this programme have been reassigned to the other research programmes. The know-how and assets developed as part of this programme, including the very high level integrated and robotised genetic, metabolic, and fermentation engineering platform, are fully re-used and recovered for the high value-added applications.

Based on the successful development of a new bio-production chassis and a unique technology platform, Bpifrance nonetheless validated the achievement of the 4th key milestone of the Deinol project, which gave rise to the payment of a €309k grant and of a repayable advance of €64k.

Development of the technology platform

Collaboration with Toulouse White Biotechnology (TWB) in order to optimise the production of Deinococcus bacteria⁷

Deinove has entered into a technological partnership with Toulouse White Biotechnology (TWB), a pre-industrial demonstrator in industrial biotechnology based on renewable carbon.

⁶ Press release dated 24 May 2016.

⁷ Press release dated 9 May 2016.

The aim is to map the metabolic fluxes of the *Deinococcus* chassis, i.e. to create an inventory of all the potentialities of the microorganism in the production of molecules of interest. The final goal is to further streamline its metabolic engineering projects and accelerate the industrial programs underway, including the carotenoid programme.

Strain library screening programme (Deinoscreen)

DEINOVE has launched an extensive programme involving the screening of Deinove's rare bacteria collection, with the aim of identifying specialty compounds of interest for the healthcare, nutrition, and cosmetics fields. This programme began with an *in vitro* screening stage in late 2016, in order to identify positive hits, which will be submitted to more advanced effectiveness tests that validate their interest for these sectors. The first positive results were announced in the 1st quarter of 2017 (See post-balance sheet events).

DEINOVE intends to enhance its portfolio of compounds of interest accordingly, in order to attract new industrial companies and commercial partners. This has already led to a partnership in the cosmetics sector with Greentech (See post-balance sheet events).

CORPORATE INFORMATION

Issuance of new patents

DEINOVE broadened its intellectual property portfolio via the issuance of 11 new patents during the 2016 financial year.

Share capital breakdown at 31 December 2016

The Company's share capital at 31 December 2016 consisted of 9,021,087 common shares with a par value of €0.40, 12,813 of which (i.e. 0.14% of the share capital) were held by the Company as part of the liquidity agreement entrusted to Kepler Cheuvreux.

As at 31 December 2016 - on a non-diluted basis

Shareholders	Number of shares	Percentage held	Voting rights	Percentage
Truffle Capital managed-funds	2,828,215	31.35%	5,493,433	46.44%
Scientific founders	20,000	0.22%	40,000	0.34%
Management and Directors	66,180	0.73%	84,921	0.72%
Free float	6,106,692	67.69%	6,210,910	52.50%
TOTAL	9,021,087	100.00%	11,829,264	100.00%

POST-BALANCE SHEET EVENTS

- **Deinove now holds 100% of Deinobiotics⁸:** the Extraordinary General Meeting held on January 5 approved the terms of the transaction involving the contribution in kind of Deinobiotics shares and the related share capital increase reserved to the contributors. The dilution resulting from this capital increase amounted to 10.15%.
- **Deinove strengthens its Board of Directors in line with its strategic focus⁹:** four Directors of international standing and experts in the pharmaceuticals and antibiotics industry, have joined the Company's Board of Directors, namely Bernard Fanget, Professor Vincent Jarlier, Doctor Yannick Pletan, and Doctor Charles Woler. Charles Woler was appointed Chairman of the Board while Philippe Pouletty, Michael Carlos and Christian Pierret remain members of the Board. This new governance brings DEINOVE invaluable medical, pharmaceutical and managerial resources and more specifically, expertise in drug development, including antibiotics. The four nominations will be submitted for ratification by the Annual General Meeting of May 16, 2017.
- **Publication of two patent applications covering the DNB101 antibiotic candidate¹⁰:** this first antibiotic candidate, which is currently under development, displays an innovative chemical structure. These patents are the first steps in building a strong intellectual property portfolio in the antibiotics field. Deinove is continuing its research, in order to identify other innovative antibiotic molecules from its strain library, and so build a true pipeline that effectively addressing the concern of multi-resistance.
- **Hiring of a preclinical project manager for the healthcare activities¹¹:** Dr Bernard Scorneaux, a specialist in pharmacology and preclinical studies in infectious diseases, has conducted the studies on several drug candidates that are currently on the market or in advanced clinical development. His expertise extends to the entire development process, from design, implementation, and follow-up of preclinical and early clinical studies (Phase I) to the drafting of regulatory documents. He is joining Deinove in order to prepare and coordinate the preclinical studies on the antibiotic compounds developed by the Company.
- **Development of the product portfolio¹²:** the strain library screening programme (Deinoscreen), which is being conducted in collaboration with the Fluofarma CRO [*Contract Research Organisation*] has enabled the identification of several dozen strains with properties that can be used in the cosmetics or dietary supplements and healthcare fields, including anti-oxidant, anti-inflammatory, and wound-healing properties, as well as molecules that influence the metabolism of fats. This means that Deinove now has a catalogue of strains with various and identified properties, in order to fuel the ongoing discussions and open up new opportunities with the industrial stakeholders.
- **Signing of a partnership in the cosmetics sector¹³:** the partnership aims to co-develop and market new active ingredients for skin care. The ambition is to bring to market a first ingredient within 18 to 24 months. GREENTECH, major player in the production and distribution of biotechnologically obtained ingredients, sells a hundred active ingredients to cosmetics manufacturers in over 30 countries.

⁸ Press release dated 5 January 2017.

⁹ Press release dated 23 January 2017.

¹⁰ Press release dated 4 January 2017.

¹¹ Press release dated 21 March 2017.

¹² Press release dated 23 March 2017.

¹³ Press release dated 27 March 2017.

- **Deinove** is reorganising its Audit Committee and its Remuneration Committee: the Audit Committee is now chaired by Christian Pierret. Yannick Pletan and Michael Carlos have been appointed as members of the Audit Committee. Charles Woler has been appointed as a member of the Remuneration Committee, which remains chaired by Philippe Pouletty.
- **Capital increase performed by using the Kepler Cheuvreux equity line funding:** the use of this line since 1 January 2017 has resulted in the issuance of 565,000 new shares, and in a capital increase of €226k (€1.115,9k including the premium above par).

The 2016 annual financial report will be available at the following address:

<http://www.deinove.com/en/investor-room/documentation-center/financial-reports>

ABOUT DEINOVE

DEINOVE (Alternext Paris: ALDEI) is a biotech company that discovers, develops and produces compounds with industrial value from rare microorganisms, for the healthcare, nutrition and cosmetics markets.

These innovative production methods represent a sustainable and competitive alternative.

For this, DEINOVE relies on two key assets:

- A unique strain bank with 6,000 rare bacteria that have not yet been exploited, mainly of the *Deinococcus* genus;
- A genetic, metabolic and fermentation engineering platform that enables them to customize these natural micro-factories, transforming them into new industry standards.

Based in Montpellier, DEINOVE employs approximately 50 employees and has nearly 160 international patent applications. The Company has been listed on Alternext since April 2010.



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