

19 June 2019

## Landmark collaboration with Little Green Pharma to commercialise transdermal cannabis technologies

**OBJ Limited (ASX: OBJ)** is pleased to announce that it has signed an agreement with Little Green Pharma (LGP), the only Australian producer and supplier of GMP quality medicinal cannabis products, to explore the adaptation of OBJ's transdermal technology for the delivery of cannabinoid therapy.

Under the funding and option agreement OBJ and LGP will collaborate on the project along with research and development experts at Curtin University. It also includes proposed joint funding of the R&D activities as well as establishing a formal 50:50 joint venture for the ownership and commercialisation of cannabis and transdermal technologies in the event of successful trials.

### **Unique Strategic Opportunity – Medicinal Cannabis and OBJ's Proprietary Transdermal (Patch) Technology**

With the global legal cannabis market projected to hit \$232 billion by 2027<sup>1</sup>, one of the key focuses of major players in the space is cannabinoid delivery systems. Current and emerging cannabinoid delivery systems include vaping, tablets, capsules, chewing gums, oils and non diamagnetic patches. Many of these are limited in their ability to deliver an accurate dose, when and where needed, and not be impacted by first pass metabolism in the case of anything ingested or inhaled.

OBJ currently uses its proven, patent protected diamagnetic microarray technology in both skin care and joint inflammation products. The technology assists in the transporting of key ingredients across the skin and into the tissue or bloodstream of a targeted area. Compared to normal patches which rely solely on formulation, the OBJ technology helps push the large sized molecules through skin, which have difficulty penetrating the skin when relying on absorption alone. In effect you can deliver the drug far more effectively to the 'problem area' which means far greater control of dosage, time of onset and effectiveness. OBJ's patented microarray technology has already been sold in over a million skin care devices by Procter and Gamble (P&G).

### **If the cannabinoid trials at Curtin University are successful in demonstrating that cannabinoids can effectively use OBJ's microarray technology:**

- (a) this could result in one of the most advanced and effective medicinal cannabis delivery systems developed in the world, to date; and
- (b) the OBJ joint venture with LGP could rapidly develop both its own products as well as licensing the technology to third parties for rapid distribution worldwide. LGP operates from one of the few fully-licensed GMP certified medicinal cannabis manufacturing facilities in Australia.

Little Green Pharma was the first – and is currently the only – Australian medicinal cannabis company producing locally-grown and GMP-manufactured cannabis products for patients. Little Green Pharma cultivates locally grown medicinal cannabis from a secure facility in Western Australia.

#### **Directors**

Mr Antonio Varano  
Mr Steven Schapera  
Mr Jeffrey Edwards  
Mr Cameron Reynolds  
Dr Chris Quirk

#### **Company Secretary**

Mr John Palermo

#### **Registered Office:**

284 Oxford Street  
Leederville  
Western Australia 6007  
Tel: +61 8 9443 3011  
www.obj.com.au  
ABN: 72 056 482 636

19 June 2019

**Jeffrey Edwards, OBJ's Founder and Managing Director, said:** "This is an excellent opportunity for OBJ given the momentum we've witnessed in medicinal cannabis as a therapeutic in Australia, but more significantly in North America and Europe."

We are thrilled to work alongside Little Green Pharma, a well-established company in the Australian medicinal cannabis industry. Backed by R&D efforts from Curtin University, this opportunity holds significant potential for all parties involved and could well represent a unique Western Australian solution to be utilised in one of the biggest growth markets in the world today."

**Fleta Solomon, Little Green Pharma's Managing Director, said:** "The benefits of medicinal cannabis are well known and increasing, therefore combining this with the experts in transdermal technology at OBJ has the potential to create some exciting possibilities. This could be a new frontier for medicinal cannabis."

### Key Benefits of Patch Technology and Medicinal Cannabis

- Transdermal patches make it possible to deliver specific cannabinoids (or mixes of cannabinoids) in order to target specific ailments. OBJ's proven technology targets concentrated delivery by more effective penetration through the skin. Other delivery systems deliver a whole mix of different cannabinoids which may be restricted in their effectiveness and have other impacts on the human system.
- Transdermal patches are designed to release cannabinoids slowly over a number of hours. That means that the medicinal effects can last at least that long. This is in contrast to other methods of consumption which peak quickly and then taper off, requiring frequent dosage. The application and wearing of a patch has numerous benefits when compared to inhalants and edibles as cannabinoid delivery systems.
- Cannabinoids have been found to have benefits in treating a number of ailments including<sup>2</sup>:
  - Aiding sleep
  - Pain relief
  - Reduction of seizures and convulsions
  - Suppression of muscle spasms
  - Relief from anxiety
  - Reduction of nausea and vomiting
  - Stimulation of appetite
  - Reduction of inflammation

#### Directors

Mr Antonio Varano  
Mr Steven Schapera  
Mr Jeffrey Edwards  
Mr Cameron Reynolds  
Dr Chris Quirk

#### Company Secretary

Mr John Palermo

#### Registered Office:

284 Oxford Street  
Leederville  
Western Australia 6007  
Tel: +61 8 9443 3011  
www.obj.com.au  
ABN: 72 056 482 636

### About Little Green Pharma

Little Green Pharma was the first – and is currently the only – Australian medicinal cannabis company producing locally-grown and GMP-manufactured cannabis products for patients. Little Green Pharma cultivates locally grown medicinal cannabis from a secure facility in Western Australia and is committed to supporting Australian doctors and patients through research. For more information, please visit [www.lgpharma.com.au](http://www.lgpharma.com.au)

<sup>1</sup>Bryan, Garnier & Co

<sup>2</sup><https://www.canada.ca/en/health-canada/services/drugs-medication/cannabis/information-medical-practitioners/information-health-care-professionals-cannabis-cannabinoids.html#a4.0>

## ABOUT OBJ

---

OBJ develops proprietary magnetic microarray drug delivery and product enhancement technologies for the pharmaceutical, healthcare and consumer goods sectors. OBJ partners with other companies in the design and development of next generation products using physical science rather than chemistry to provide new levels of product performance without the cost of reformulation or new ingredient approvals.

OBJ offers a portfolio of proprietary technologies and supports its partners by providing IP-protected market exclusivity, expertise in magnetic array design, feasibility and efficacy and claims testing, engineering and production.

## ABOUT OBJ'S TECHNOLOGIES

---

OBJ has developed a number of physical enhancement technologies based on the interactions between ingredient molecules and weak atomic forces. These influence the movement and penetration through the skin of drugs, active ingredients and formulations at the molecular level.

Complex 3-D magnetic fields produced by low cost microarrays or powered electromagnetic inductors have the ability to repulse certain molecules to enhance diffusion and to alter the permeability of biological and non-biological targets.

OBJ's low cost microarray film technology that utilises diamagnetic repulsion, induced permeation and energy redirection has already reached international markets to provide OBJ's Partners with a new way of managing the speed, depth of penetration and delivery of active ingredients in a wide range of pharmaceutical, healthcare and consumer products.

## FORWARD-LOOKING STATEMENTS

---

This announcement contains certain "forward-looking statements" concerning OBJ. Where OBJ expresses or implies an expectation or belief as to future events or results, such expectation or belief is expressed in good faith and believed to have a reasonable basis.

Forward-looking statements provided in this announcement are based on assumptions and contingencies which are subject to change without notice. Such forward-looking statements including statements regarding intentions, planned events and potential results are provided as a general guide only and should not be relied upon as an indication or guarantee of future performance.

There can be no assurance that actual outcomes will not differ materially from these forward-looking statements, and there are risks associated with OBJ and the industry which may affect the accuracy of the forward-looking statements. OBJ does not undertake any obligation to release publicly any revisions to any forward-looking statement to reflect events or circumstances after the date of this announcement or to reflect the occurrence of unanticipated events, except as may be required under applicable securities laws.

### Directors

Mr Antonio Varano  
Mr Steven Schapera  
Mr Jeffrey Edwards  
Mr Cameron Reynolds  
Dr Chris Quirk

### Company Secretary

Mr John Palermo

### Registered Office:

284 Oxford Street  
Leederville  
Western Australia 6007  
Tel: +61 8 9443 3011  
www.obj.com.au  
ABN: 72 056 482 636



**OBJ RELEASE**

19 June 2019

**For more information:**

Matthew Wright

[matt@nwrcommunications.com.au](mailto:matt@nwrcommunications.com.au)

**Phone:** +61 451 896 420

**Directors**

Mr Antonio Varano

Mr Steven Schapera

Mr Jeffrey Edwards

Mr Cameron Reynolds

Dr Chris Quirk

**Company Secretary**

Mr John Palermo

**Registered Office:**

**284 Oxford Street**

**Leederville**

**Western Australia 6007**

Tel: +61 8 9443 3011

[www.obj.com.au](http://www.obj.com.au)

ABN: 72 056 482 636