

## Pivot Pharma Develops Transdermal Patch for Delivery of CBD and THC Formulated Using Pivot's Thrudermic<sup>TM</sup> Transdermal Nanotechnology

VANCOUVER, BC - (February 15, 2019) – <u>Pivot Pharmaceuticals Inc</u>. (CSE: <u>PVOT</u> / OTCQB: <u>PVOTF</u> / FRA: <u>NPAT</u>) ("Pivot" or the "Company") is pleased to announce that the Company has completed the development of a controlled-release transdermal patch system for the delivery of cannabinoids. Thrudermic<sup>TM</sup> is a proven technology for penetration through the skin and reaching the blood stream without altering the skin structure. The patch uses the Thrudermic<sup>TM</sup> nanotechnology developed by Dr. Leonid Lurya and Dr. Joseph Borovsky at Pivot's Contract Laboratory in Israel. The process entails formulating a nanoparticle in a phospholipid matrix and suspended in a gel. The patch is assembled by coating it with Thrudermic<sup>TM</sup> gel containing a cannabinoid, for single use applications. Depending on the formulation, the Thrudermic<sup>TM</sup> patch can be designed for quick onset or sustained release presentations.

## Key Thrudermic<sup>™</sup> Transdermal Patch Attributes:

- Safe and effective;
- Better dosing control;
- Non-invasive administration;
- Less probability of adverse reactions (especially to the GI System);
- User friendly and discrete;
- Can deliver CBD, THC, or CBD:THC combinations;
- No chemical enhancers;
- Quick onset or slow-release;
- Increased bioavailability as cannabinoid passes directly into the bloodstream;
- Safer alternative to inhalation, oral or suppository use.

Dr. Joseph Borovsky, Pivot's Chairman and Executive Vice President, Technology, commented, "I am very pleased to add yet another product to Pivot's industry leading bio-cannabis portfolio. Our competitive advantage is producing consistent products using patented and proven drug delivery systems that result in the formulation of disruptive solutions for the cannabis industry. All our products improve the absorption of cannabinoids into the body allowing the user better exposure to the natural ingredient that they choose. As the market develops and consumers begin to understand that tropical oils or fish oils are ineffective delivery systems, they will demand consistent, high-quality and effective products. Pivot's products are much more sophisticated than just coconut oil or shea butter mixtures and they address the fact that current products on the market lack standardization, appropriate controls, and bioavailability. Pivot has solved these problems by borrowing from the pharma industry playbook. Pivot will manufacture and distribute the Thrudermic<sup>TM</sup> Transdermal Patch through its existing extensive global partnerships, where regulations permit."

According to an industry report, transdermal drug delivery (TDD) through skin patches is both economically and pharmacokinetically promising. The TDD market was valued at approximately USD \$27 billion in 2013 and was predicted to experience an 8% Compound Annual Growth Rate (CAGR). Over the years, local anesthetic patches have undergone several upgrades, despite their constituting only 2% of the global TDD market. Part of the interest in investment into local pain relief patches is to control the usage of such therapeutics, as they contain controlled

substances that may cause addiction. Furthermore, slow release patches are more effective than bolus doses that fluctuate."<sup>1</sup>

## About Pivot Pharmaceuticals Inc.

Pivot Pharmaceuticals Inc. is a biopharmaceutical company engaged in the development and commercialization of therapeutic pharmaceuticals and nutraceuticals using innovative drug delivery platform technologies. Pivot's wholly-owned medical cannabis products division, Pivot Green Stream Health Solutions Inc. ("PGS" or "Pivot Green Stream"), conducts research, development and commercialization of cannabinoid-based nutraceuticals and pharmaceuticals. Pivot's wholly-owned U.S. subsidiary, Pivot Naturals, LLC, based in Costa Mesa, California, will manufacture and supply finished powderized cannabis products such as food additives, capsules, bulk powder and stick packs to the California market. PGS has acquired "RTIC" Ready-To-Infuse Cannabis oil-to-powder technology and Thrudermic™ Transdermal Nanotechnology (transdermal); acquired worldwide rights to BiPhasix™ Dermal Drug Delivery platform technology (topical), Solmic Solubilisation technology (oral), and Solumer™ Oral Drug Delivery technology for the delivery and commercialization of cannabinoid, cannabidiol (CBD), and tetrahydrocannabinol (THC)-based products. For more information please visit pivotpharma.com

## **Cautionary Note Regarding Forward-Looking Statements:**

Except for historical information contained herein, the matters set forth above may be forward-looking statements that involve certain risks and uncertainties that could cause actual results to differ from those in the forward-looking statements. Words such as anticipate, believe, estimate, expect, intend, and similar expressions, as they relate to Pivot Pharmaceuticals Inc., Pivot Green Stream Health Solutions Inc., Pivot Naturals, LLC, its subsidiaries, or its management, identify forward-looking statements. Such forward-looking statements are based on the current beliefs of management, as well as assumptions made by and information currently available to management. Actual results could differ materially from those contemplated by the forward-looking statements as a result of certain factors, such as the failure to meet the conditions imposed by the CSE or other securities regulators, the level of business and consumer spending, the amount of sales of Pivot's products, statements with respect to internal expectations, the competitive environment within the industry, the ability of Pivot to continue to expand its operations, the level of costs incurred in connection with Pivot's expansion efforts, economic conditions in the industry, and the financial strength of Pivot's customers and suppliers. Pivot does not undertake any obligation to update such forward-looking statements. Investors are also directed to consider all other risks and uncertainties.

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<sup>&</sup>lt;sup>1</sup> https://metrology.imedpub.com/transdermal-drug-delivery-tdd-throughskin-patches.php?aid=9340