# BioDelivery Sciences Announces FDA Approval of New Formulation of ONSOLIS® (fentanyl buccal soluble film) CII

August 13, 2015

RALEIGH, N.C., Aug. 13, 2015 /PRNewswire/ -- BioDelivery Sciences International, Inc. (NASDAQ: BDSI) announced the approval by the U.S. Food and Drug Administration (FDA) of a Supplemental New Drug Application (sNDA) for a new formulation of ONSOLIS® (fentanyl buccal soluble film) CII for the management of breakthrough pain in patients with cancer who are opioid tolerant. The new formulation was submitted to address previously announced appearance-related changes.

Early this year, BDSI announced that it entered into an assignment and revenue sharing agreement with its partner for ONSOLIS, Meda Pharmaceuticals, to return the marketing authorization back to BDSI and the right to seek marketing authorizations for ONSOLIS in the United States, Canada and Mexico. Meda retains the rights to ONSOLIS outside the U.S., where it is marketed in the E.U. as BREAKYL. ONSOLIS is separately licensed by BDSI in Taiwan and South Korea.

"We are pleased to have obtained FDA approval of our sNDA and to now be in a position to move toward returning ONSOLIS to the U.S. marketplace," said Dr. Mark A. Sirgo, President and Chief Executive Officer. "ONSOLIS remains an important differentiated fentanyl containing product for this indication given that it is the only product for buccal administration, providing patients with an alternative dosing option."

Dr. Sirgo continued, "Although we have options for ONSOLIS, including commercializing it on our own, our current plan is to determine the value we can secure in a partnership with a company that has access to the target physician audience. We have been engaged with a number of potential partners, and with this approval, we can now proceed forward with those discussions in earnest. We will provide more definitive timing in the near future about the reintroduction but this would not be prior to 2016."

ONSOLIS will be part of the Transmucosal Immediate Release Fentanyl (TIRF) Risk Evaluation and Mitigation Strategy (REMS) program, which is an FDA-required program designed to ensure informed risk-benefit decisions before initiating treatment, and while patients are treated to ensure appropriate use of TIRF medicines. The purpose of the TIRF REMS Access program is to mitigate the risk of misuse, abuse, addiction, overdose and serious complications due to medication errors with the use of TIRF medicines.

***About BioDelivery Sciences International***

BioDelivery Sciences International, Inc. is a specialty pharmaceutical company with a focus in the areas of pain management and addiction medicine. BDSI is utilizing its novel and proprietary BioErodible MucoAdhesive (BEMA®) technology and other drug delivery technologies to develop and commercialize, either on its own or in partnership with third parties, new applications of proven therapies aimed at addressing important unmet medical needs.

BDSI's development strategy focuses on utilization of the FDA's 505(b)(2) approval process. This regulatory pathway creates the potential for more timely and efficient approval of new formulations of previously approved therapeutics.

BDSI's particular area of focus is the development and commercialization of products in the areas of pain management and addiction. These are areas where BDSI believes its drug delivery technologies and products can best be applied to address critical unmet medical needs. BDSI's marketed products and those in development address serious and debilitating conditions such as breakthrough cancer pain, chronic pain, painful diabetic neuropathy and opioid dependence.
BDSI's headquarters is located in Raleigh, North Carolina.

For more information, please visit or follow us:

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| Internet: | www.bdsi.com |
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**INDICATION**

ONSOLIS (fentanyl buccal soluble film, CII) is indicated only for the management of breakthrough pain in patients with cancer, 18 years of age and older, **who are already receiving and who are tolerant to opioid therapy for their underlying persistent cancer pain.** Patients considered opioid tolerant are those who are taking at least: 60 mg oral morphine/day, 25 mcg transdermal fentanyl/hour, 30 mg oral oxycodone/day, 8 mg oral hydromorphone/day, 25 mg oral oxymorphone/day, or an equianalgesic dose of another opioid for one week or longer.

The most serious adverse reactions associated with all opioids, including ONSOLIS, are respiratory depression (potentially leading to apnea or respiratory arrest), circulatory depression, hypotension, and shock. Follow all patients for symptoms of respiratory depression.

In ONSOLIS trials, the most common adverse reactions (frequency ≥10%) were nausea, vomiting, dehydration, asthenia, dyspnea, fatigue,

constipation, dizziness, and somnolence.

**WARNINGS: IMPORTANCE OF PROPER PATIENT SELECTION and POTENTIAL FOR ABUSE**

**ONSOLIS contains fentanyl, an opioid agonist and a Schedule II controlled substance, with abuse liability similar to other opioid analgesics. This should be considered when prescribing or dispensing ONSOLIS in situations where the physician or pharmacist is concerned about an increased risk of misuse, abuse or diversion. Schedule II opioid substances, which include morphine, oxycodone, hydromorphone, oxymorphone, and methadone, have the highest potential for abuse and risk of fatal overdose due to respiratory depression.**

**Serious adverse events, including deaths, in patients treated with other oral transmucosal fentanyl products have been reported. Deaths occurred as a result of improper patient selection (e.g., use in opioid non-tolerant patients) and/or improper dosing. The substitution of ONSOLIS for any other fentanyl product may result in fatal overdose.**

**ONSOLIS is contraindicated for use in opioid non-tolerant patients including those using opioids intermittently, on an as needed basis. ONSOLIS is contraindicated in the management of acute or postoperative pain, including headache/migraine, dental pain, or use in the emergency room. Life-threatening respiratory depression could occur at any dose in opioid non-tolerant patients. Deaths have occurred in opioid non-tolerant patients treated with other fentanyl products.**

**ONSOLIS is contraindicated in patients with known intolerance or hypersensitivity to any of its components or the drug fentanyl. Anaphylaxis and hypersensitivity have been reported in association with the use of other oral transmucosal fentanyl products.**

**When prescribing, do not convert patients on a mcg per mcg basis from any other oral transmucosal fentanyl product to ONSOLIS. Patients beginning treatment with ONSOLIS must begin with titration from the 200 mcg dose [see *Dosage and Administration*]. When dispensing, do not substitute an ONSOLIS prescription for any other fentanyl product. Substantial differences exist in the pharmacokinetic profile of ONSOLIS compared to other fentanyl products that result in clinically important differences in the extent of absorption of fentanyl. As a result of these differences, the substitution of ONSOLIS for any other fentanyl product may result in fatal overdose.**

ONSOLIS is intended to be used only in the care of opioid-tolerant patients with cancer and only by health care professionals who are knowledgeable of, and skilled in, the use of Schedule II opioids to treat cancer pain.

Special care must be used when dosing ONSOLIS. If the breakthrough pain episode is not relieved, patients should wait at least 2 hours before taking another dose [see *Dosage and Administration*].

**Patients and their caregivers must be instructed that ONSOLIS contains a medicine in an amount which can be fatal in children, in individuals for whom it is not prescribed, and in those who are not opioid tolerant. All ONSOLIS films must be kept out of the reach of children [see *Patient Counseling Information*].**

The concomitant use of ONSOLIS with CYP3A4 inhibitors may result in an increase in fentanyl plasma concentrations and may cause potentially fatal respiratory depression [see *Drug Interactions*].

**Because of the risk for misuse, abuse, addiction, and overdose, ONSOLIS is available only through a restricted program required by the Food and Drug Administration, called a Risk Evaluation and Mitigation Strategy (REMS). Under the Transmucosal Immediate Release Fentanyl (TIRF) REMS Access program, outpatients, healthcare professionals who prescribe to outpatients, pharmacies, and distributors must enroll in the program. *[see Warnings andPrecautions].* Further information is available at www.TIRFREMSAccess.com or by calling 1-866-822-1483.**

**Cautionary Note on Forward-Looking Statements**

This press release and any statements of employees, representatives and partners of BioDelivery Sciences International, Inc. (the "Company") related thereto (including, without limitation, at the presentations described herein) contain, or may contain, among other things, certain "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995. Such forward-looking statements involve significant risks and uncertainties. Such statements may include, without limitation, statements with respect to the Company's plans, objectives, projections, expectations and intentions and other statements identified by words such as "projects," "may," "will," "could," "would," "should," "believes," "expects," "anticipates," "estimates," "intends," "plans," "potential" or similar expressions. These statements are based upon the current beliefs and expectations of the Company's management and are subject to significant risks and uncertainties, including those detailed in the Company's filings with the Securities and Exchange Commission. Actual results (including, without limitation, the outcome of the Company's initiatives with ONSOLIS described herein) may differ significantly from those set forth in the forward-looking statements. These forward-looking statements involve certain risks and uncertainties that are subject to change based on various factors (many of which are beyond the Company's control). The Company undertakes no obligation to publicly update any forward-looking statements, whether as a result of new information, future presentations or otherwise, except as required by applicable law.



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For further information: Investors: Matthew P. Duffy, Managing Director, LifeSci Advisors, LLC, 212-915-0685, matthew@lifesciadvisors.com, or Al Medwar, Vice President, Marketing and Corporate Development, BioDelivery Sciences International, Inc., 919-582-9050, amedwar@bdsi.com, or Media: Susan Forman/Laura Radocaj, Dian Griesel Int'l., 212-825-3210, sforman@dgicomm.com, lradocaj@dgicomm.com