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Cocrystal Pharma Presents Positive Preclinical Data for CC-42344 at the Options X for the Control of Influenza Conference

- CC-42344 showed broad spectrum activity, excellent anti-influenza activity ($EC_{50} < 1 \text{ nM}$), and a strong synergistic effect with approved influenza antivirals -
- Preclinical study demonstrated favorable pharmacokinetic and ADMET profiles of PB2 inhibitors -

BOTHELL, WA, Sept. 03, 2019 (GLOBE NEWSWIRE) -- [Cocrystal Pharma, Inc.](#) (NASDAQ: COCP), ("Cocrystal" or the "Company"), a clinical stage biotechnology company discovering and developing novel antiviral therapeutics, today announced that Sam Lee, Ph.D., President of Cocrystal, presented positive preclinical data of CC-42344 at the [ISIRV: Options X for the Control of Influenza Conference](#) being held August 28-September 1, 2019 in Singapore.

As part of his oral presentation, Dr. Lee provided an overview of the Company's distinct class of PB2 inhibitors developed utilizing its structure-based technology. Cocrystal's novel, potent, broad spectrum anti-influenza preclinical lead molecule, CC-42344, targets the cap-binding PB2 domain and is active against a panel of seasonal, pandemic, and Tamiflu-resistant influenza A strains. Additionally, Dr. Lee presented *in vitro* characterization and mechanism of action of these novel PB2 inhibitors.

The *in vitro* characterization and mechanism of action was obtained through a process in which seven different influenza A PB2 domains (H1N1, H2N2, H3N2, H5N1, and H7N9) were purified for protein crystallization and biochemical assays. PB2 crystals and cocrystals were diffracted to 1.0 – 2.5 Å. Cytopathic effect (CPE) assays measured antiviral activity.

"The data we have generated in this program continue to be encouraging. Our unique structure-based platform technology has continued to bolster our confidence in its potential in the development of any antiviral drug. We believe our platform has the potential to fuel a diverse pipeline that will have a meaningful impact on a number of high-value indications, including influenza," commented Dr. Lee. "As a result, anti-influenza PB2 inhibitors have been developed for the treatment of seasonal and pandemic influenza infections and we look forward to providing additional updates as we explore the full potential of these novel molecules."

Results from the preclinical study demonstrated high resolution X-ray cocrystal structures of CC-42344 and other PB2 inhibitors, and further revealed a channel connected to the high conserved m7GTP binding site. These novel PB2 inhibitors showed broad spectrum activity,

excellent anti-influenza activity (EC₅₀ <1 nM), and a strong synergistic effect with approved influenza antivirals including Tamiflu (oseltamivir) and Xoflaxa (baloxavir). In addition to the *in vitro* studies, the Company also obtained favorable pharmacokinetic and ADMET profiles of these PB2 inhibitors.

Cocrystal is applying its proprietary platform technology to develop novel, broad spectrum influenza antivirals that are specifically designed to be effective against all significant A strains of the influenza virus and to have a high barrier to resistance due to the way they target the virus's replication machinery. CC-42344, the Company's lead molecule for the treatment of influenza A, binds to a highly conserved PB2 site on the influenza polymerase complex and exhibits a novel mechanism of action that inhibits viral replication. CC-42344 is currently being evaluated in preclinical IND-enabling studies for the treatment of influenza.

About the International Society for Influenza and Other Respiratory Virus Diseases (ISIRV)

The ISIRV is an independent and international scientific professional society promoting the prevention, detection, treatment, and control of influenza and other respiratory virus diseases. *Options X*, the 10th edition of the *Options for the Control of Influenza* conference, is ISIRV's premier event and remains the largest international conference exclusively dedicated to influenza prevention, control and treatment, including seasonal flu and pandemic preparedness. Highlights of the meeting include: new tracks on influenza co-infections with other viral pathogens and key issues for policy making - a special session to showcase the latest developments in Chinese-speaking countries - and pre-conference workshops on a wide variety of topics including technology, mathematical modelling and bioinformatics. For more information, please visit the [conference website](#).

About Cocrystal Pharma, Inc.

Cocrystal Pharma, Inc. is a clinical stage biotechnology company discovering and developing novel antiviral therapeutics that target the replication machinery of influenza viruses, hepatitis C viruses, and noroviruses. Cocrystal employs unique structure-based technologies and Nobel Prize winning expertise to create first- and best-in-class antiviral drugs. The Company is developing CC-31244, an investigational, oral, broad-spectrum replication inhibitor called a non-nucleoside inhibitor (NNI). CC-31244 is currently being evaluated in a Phase 2a study for the treatment of hepatitis C as part of a cocktail for ultra-short therapy of 4 to 6 weeks. Cocrystal recently entered into an exclusive worldwide license and collaboration agreement with Merck & Co., Inc. to discover and develop certain proprietary influenza A/B antiviral agents. CC-42344, the Company's molecule for the treatment of influenza A, is currently being evaluated in preclinical IND-enabling studies. In addition, the Company has a pipeline of promising early preclinical programs and continues to identify and develop novel antivirals for the treatment of norovirus gastroenteritis using the Company's proprietary structure-based drug design technology platform. For further information about Cocrystal, please visit www.cocrystalpharma.com.

Forward-Looking Statements

This press release contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995, including the prospects for CC-31244, CC-42344 and the Company's pipeline of promising preclinical programs. The words "believe," "may,"

"estimate," "continue," "anticipate," "intend," "should," "plan," "could," "target," "potential," "is likely," "will," "expect" and similar expressions, as they relate to us, are intended to identify forward-looking statements. We have based these forward-looking statements largely on our current expectations and projections about future events. Some or all of the events anticipated by these forward-looking statements may not occur. Important factors that could cause actual results to differ from those in the forward-looking statements include, but are not limited to, risks arising from our reliance on continuing collaboration with Merck under the collaboration agreement, the availability of products manufactured by third parties, the future results of preclinical and clinical studies, the research organization's inability to recruit subjects and complete the Phase 2a study in a timely manner or at all, including as the result of civil unrest and political instability in Hong Kong, general risks arising from clinical trials, receipt of regulatory approvals, our ability to find and enter into agreements with suitable collaboration partners, unanticipated litigation and other expenses and factors that affect the capital markets in general and early stage biotechnology companies specifically. Further information on our risk factors is contained in our filings with the SEC, including our Annual Report on Form 10-K for the year ended December 31, 2018 and the Form 10-Q for the quarter ended June 30, 2019. Any forward-looking statement made by us herein speaks only as of the date on which it is made. Factors or events that could cause our actual results to differ may emerge from time to time, and it is not possible for us to predict all of them. We undertake no obligation to publicly update any forward-looking statement, whether as a result of new information, future developments or otherwise, except as may be required by law.

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