



**PYROGENESIS ANNOUNCES SUCCESSFULLY DESTROYING SIMULATED
CHEMICAL WARFARE AGENTS FOR THE US MILITARY;
EXCEEDING 99.9999% DESTRUCTION EFFICIENCY.**

MONTREAL, QUEBEC--(Marketwired – April 19, 2017) - PyroGenesis Canada Inc. (<http://pyrogenesis.com>) (TSX-V: PYR) (OTCQB: PYRNF), a high tech company (the “Company” or “PyroGenesis” or “PCI”) that designs, develops, manufactures and commercializes plasma based systems and plasma torch products, is pleased to announce today that, further to its press release of September 14, 2016, PyroGenesis has, in coordination with the US-based Southwest Research Institute (SwRI), successfully completed long-duration performance tests using the Company’s tactical Plasma Arc Chemical Warfare Agents Destruction System (“PACWADS” or the “System”) using surrogate chemical warfare agent material. These tests supported the Defense Advanced Research Projects Agency (DARPA) Agnostic Compact Demilitarization of Chemical Agents (ACDC) program and far exceeded minimum requirements with over 99.9999% destruction efficiency.

“DARPA’s mission is to make pivotal investments in breakthrough technologies, to affect transformational change instead of incremental advances. In the scope of this project, PyroGenesis’ System is the key to revolutionizing the mobile destruction of Chemical Warfare Agents (CWAs)”, said Jean-René Gagnon, Process Engineering Lead at PyroGenesis. “The Company is proud to be working with such a prestigious partner on such a challenging project.”

PyroGenesis’ PACWADS is a stand-alone thermal treatment device, with a liquid scrubber system. This mature technology is designed to be easily transported and deployed in a field setting, close to where threats may be found, to rapidly and safely destroy a wide range of chemical warfare agents. The System successfully underwent CWA simulant testing at the PyroGenesis facility in Montreal, Canada, in January and February of 2017. The System demonstrated greater than a 6-log reduction in CWA simulant and the effective scrubbing of acid gases.

Under the DARPA ACDC program, SwRI designed a scrubber system that neutralizes toxic CWA decomposition products and acid gases into non-hazardous components by safely incorporating these compounds into soil and changing their state. The system is a modular and mobile unit. After the chemicals are destroyed, exhaust gases are passed through a soil-based scrubber beds where the byproducts of combustion are captured and further baked using a novel soil-based pollution abatement system. The soil, after use, remains non-hazardous and useful.

In February 2017, the SwRI soil-based scrubber module was connected to the PyroGenesis PACWADS plasma combustion chamber exhaust and tested. CWA simulants were destroyed by the plasma torch in a series of tests emulating destruction of CWA agents sarin (GB), soman (GD), and mustard (HD). The two modules – plasma torch front end, and ACDC soil scrubber back end – demonstrated a more than 99.9999% efficiency in CWA simulant reduction and the effective scrubbing of acid gases within a soil medium.

“If successful, PACWADS will be one of the few technologies in the world certified to destroy CWAs. PyroGenesis anticipates that receiving this certification will open the door to additional opportunities, such as the safe destruction of Ebola contaminated material, just to name one”, said Philippe Beaulieu, Senior Project Manager at PyroGenesis.

“A successfully developed system would safely destroy chemical warfare agent stockpiles onsite without having to transport these highly toxic chemicals to a remote location for processing,” said P. Peter Pascali, President and CEO of PyroGenesis. “Successfully completing this contract reflects the significant advances that we, at PyroGenesis, have achieved, and which we expect to continue to achieve in the area of defense and chemical warfare agent destruction. This, coupled with the fact that our plasma based waste destruction system is specified in the design of the new generation US aircraft carrier, with two systems already having been delivered, further solidifies our position within the US military as being the ‘go-to’ supplier of plasma-based solutions.”

Separately, PyroGenesis announces today that a series of warrants previously issued by the Company has been fully exercised. The warrants were issued in connection with a private placement offering completed on November 26, 2014, which terms were subsequently amended to effectively reduce the exercise price from \$0.55 to \$0.195, and to extend the expiration date from November 26, 2016 to November 26, 2017. As a result of such exercise, the Company received an aggregate amount of \$417,857.12, and issued 2,142,857 common shares in its share capital.

PyroGenesis is also pleased to announce that it recently became a member of the 8020 Connect community. 8020 Connect (www.8020connect.com) is the investment industry's newest social investor network, developed to deliver corporate information to shareholders, investment industry experts and like-minded investors, while enabling these group members to interact with one another and with the company's corporate management team.

Through the 8020 Connect shareholder and investor network, PyroGenesis can communicate its corporate message and update advancements and financial information to all shareholders and investors in a timely and effective fashion. The 8020 Connect social media component provides direct interaction with shareholders, allowing the company to respond to questions and inquiries directly or through our private investor group forums. The 8020 Connect network will also allow PyroGenesis to expand its audience to interested investors and industry experts worldwide.

About PyroGenesis Canada Inc.

PyroGenesis Canada Inc. is the world leader in the design, development, manufacture and commercialization of advanced plasma processes. PyroGenesis provides engineering and manufacturing expertise, cutting-edge contract research, as well as turnkey process equipment packages to the defense, metallurgical, mining, additive manufacturing (3D printing), oil & gas, and environmental industries. With a team of experienced engineers, scientists and technicians working out of our Montreal office and our 3,800 m² manufacturing facility, PyroGenesis maintains its competitive advantage by remaining at the forefront of technology development and commercialization. Its core competencies allow PyroGenesis to lead the way in providing

innovative plasma torches, plasma waste processes, high-temperature metallurgical processes, and engineering services to the global marketplace. Its operations are ISO 9001:2008 certified, and have been ISO certified since 1997. PyroGenesis is a publicly-traded Canadian company on the TSX Venture Exchange (Ticker Symbol: PYR) and on the OTCQB Marketplace (Ticker Symbol: PYRNF). For more information, please visit www.pyrogenesis.com

This press release contains certain forward-looking statements, including, without limitation, statements containing the words "may", "plan", "will", "estimate", "continue", "anticipate", "intend", "expect", "in the process" and other similar expressions which constitute "forward-looking information" within the meaning of applicable securities laws. Forward-looking statements reflect the Company's current expectation and assumptions, and are subject to a number of risks and uncertainties that could cause actual results to differ materially from those anticipated. These forward-looking statements involve risks and uncertainties including, but not limited to, our expectations regarding the acceptance of our products by the market, our strategy to develop new products and enhance the capabilities of existing products, our strategy with respect to research and development, the impact of competitive products and pricing, new product development, and uncertainties related to the regulatory approval process. Such statements reflect the current views of the Company with respect to future events and are subject to certain risks and uncertainties and other risks detailed from time-to-time in the Company's ongoing filings with the securities regulatory authorities, which filings can be found at www.sedar.com, or at www.otcmarkets.com. Actual results, events, and performance may differ materially. Readers are cautioned not to place undue reliance on these forward-looking statements. The Company undertakes no obligation to publicly update or revise any forward-looking statements either as a result of new information, future events or otherwise, except as required by applicable securities laws.

Neither the TSX Venture Exchange, its Regulation Services Provider (as that term is defined in the policies of the TSX Venture Exchange) nor the OTC Markets Group Inc. accepts responsibility for the adequacy or accuracy of this press release.

SOURCE PyroGenesis Canada Inc.

For further information: Rodayna Kafal, VP, Investor Relations and Communications, Phone: (514) 937-0002, E-mail: ir@pyrogenesis.com or rkafal@pyrogenesis.com