



PyroGenesis Secures \$1.15 MM Phase 2 Contract Award from Innovative Solutions Canada to Develop a Hybrid Ceramic Powder Processing System

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MONTREAL, Oct. 19, 2021 (GLOBE NEWSWIRE) -- PyroGenesis Canada Inc. (<http://pyrogenesis.com>) (NASDAQ: PYR) (TSX: PYR) (FRA: 8PY), a high-tech Company (hereinafter referred to as the "Company" or "PyroGenesis"), that designs, develops, manufactures and commercializes advanced plasma processes and sustainable solutions to reduce greenhouse gases, is pleased to announce that it has been awarded an [Innovative Solutions Canada](#) (ISC) Phase 2 (Prototype Development) contract of approximately \$ 1.15 MM to develop a unique hybrid ceramic powder (HCP) processing system for the [National Research Council Canada](#), Canada's largest federal research and development organization.

Carbon nanotubes hold significant potential for mechanical reinforcement in composite materials, including ceramic composites. However, the bundling of the carbon nanotubes has prevented this potential from being realized. PyroGenesis' system utilizes a thermal plasma process to simultaneously synthesize carbon nanotubes and deposit them on a ceramic powder within a single plasma reactor. PyroGenesis is in the process of building an integrated and automated system to produce high quality ceramic powder products in a safe, economical, and highly scalable manner. PyroGenesis would first optimize the process, then finalize the design and manufacturing of the system. The Phase 2 project follows a successful Phase 1 proof of concept.

"The main competitive advantage of our solution is the ability to process ceramic powder in the same reactor as the carbon nanotube synthesis, allowing for production in a single step," said Mr. Pierre Carabin, CTO and Chief Strategist of PyroGenesis. "We believe this process will prove far more efficient and scalable than conventional technologies such as the Chemical Vapor Deposition (CVD) process. Additionally, we believe that our technology is capable of processing a variety of composite materials, which could lead to the development of new IP and product lines for other specialty powder production technologies."

"This Phase 2 award reflects our commitment to developing innovative technology solutions," said Mr. P. Peter Pascali, CEO and Chair of PyroGenesis. "The success of this innovative process would allow us to further expand our capabilities in carbon nanotube and specialty powder production. In addition to its commercial potential, this process provides numerous environmental benefits. For instance, the main source of energy to drive the plasma torch will be renewable hydroelectric power. We are extremely proud to have been chosen by the Government of Canada for this award, and believe our selection aligns with the goals of this program by supporting technological innovation and fostering economic development."

About PyroGenesis Canada Inc.

PyroGenesis Canada Inc., a high-tech company, is a leader in the design, development, manufacture and commercialization of advanced plasma processes and sustainable solutions which reduce greenhouse gases (GHG), and are economically attractive alternatives to conventional "dirty" processes. PyroGenesis has created proprietary, patented and advanced plasma technologies that are being vetted and adopted by multiple multibillion dollar industry leaders in four massive markets: iron ore pelletization, aluminum, waste management, and additive manufacturing. With a team of experienced engineers, scientists and technicians working out of its Montreal office, and its 3,800 m² and 2,940 m² manufacturing facilities, PyroGenesis maintains its competitive advantage by remaining at the forefront of technology development and commercialization. The operations are ISO 9001:2015 and AS9100D certified, having been ISO certified since 1997. 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 Corporation'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 Corporation with respect to future events and are subject to certain risks and uncertainties and other risks detailed from time-to-time in the Corporation's ongoing filings with the securities regulatory authorities, which filings can be found at www.sedar.com, or at www.sec.gov. Actual results, events, and performance may differ materially. Readers are cautioned not to place undue reliance on these forward-looking statements. The Corporation 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 Toronto Stock Exchange, its Regulation Services Provider (as that term is defined in the policies of the Toronto Stock Exchange) nor the NASDAQ Stock Market, LLC accepts responsibility for the adequacy or accuracy of this press release.

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