



## **PyroGenesis Announces Significant Development: PyroGenesis Additive Can Now Offer Tungsten-Free Titanium Powders.**

**MONTREAL, Quebec (GlobesNewswire – March 19<sup>th</sup>, 2018)** - PyroGenesis Canada Inc. (<http://pyrogenesis.com>) (TSX-V: PYR), (the "Company", the "Corporation" or "PyroGenesis") a Company that designs, develops and manufactures plasma waste-to-energy systems and plasma torch systems, is pleased to announce today that PyroGenesis Additive can now offer Tungsten free metal powders to the Additive Manufacturing ("AM") industry.

"The impact of Tungsten inclusions in a final part can have serious consequences<sup>1</sup>," said Mr. Pierre Carabin, Chief Technology Officer of PyroGenesis. "They can be the cause of failures. Since the melting point of Tungsten is higher than that of Titanium, it does not melt during the AM printing process. As a result, tungsten inclusions can become preferred sites for crack initiation. This has led to catastrophic failures and is clearly unacceptable, particularly in the aerospace industry."

PyroGenesis, the inventor of plasma atomization, and known for its plasma torch expertise, has significantly improved on its original design, such that today it produces Titanium powders with no Tungsten inclusions. PyroGenesis' quality control process thoroughly screens for any form of contamination. Tungsten-free powder is highly sought after by the aerospace and medical industries.

"We know of no other plasma atomization process (using DC torches) which uses tungsten free nozzles. Plasma torches with tungsten nozzles are at high risk of having tungsten inclusions in their powders. We no longer have that risk," said Mr. P. Peter Pascali, CEO & President of PyroGenesis. "This is a significant development in powder production. What is noteworthy is that within a few short months of having been made aware of this problem, by significant players in the industry, PyroGenesis was able to find an answer. This not only underscores PyroGenesis' ability to quickly find solutions to complex issues, but how these solutions can lead to economically valuable alternatives, and open the door to addressing this need with potential clients."

### **About PyroGenesis Additive**

PyroGenesis Additive, a division of PyroGenesis Canada Inc. (<http://pyrogenesis.com>) (TSX-V: PYR), (the "Company", or "PyroGenesis"), the inventor of Plasma Atomization, specializes in providing plasma atomized spherical metallic powders with some of the most spherical, pure, dense, and

---

<sup>1</sup> <https://www.tctmagazine.com/3d-printing-news/the-powder-perspective-behinds-the-scenes-lpw/>

highly flowable properties, which are highly sought after in the Additive Manufacturing (“AM”) and Metal Injection Molding (“MIM”) Industry. With PyroGenesis’ extensive plasma expertise, PyroGenesis Additive is not only able to convert traditional metals and alloys into high purity spherical powders, but also create specialty powders on an exclusive basis. The versatility of the process allows PyroGenesis Additive to quickly adapt to a customer’s needs in terms of controlling the Particle Size Distribution (PSD) of the bulk powder, it can produce any size cut with little to no waste which is game changing for the industry as it significantly reduces costs to the end-user. The metal powders produced by PyroGenesis Additive are ideal for the additive manufacturing, aerospace, biomedical, thermal spray, and metal injection molding industries.

### **About PyroGenesis Canada Inc.**

PyroGenesis Canada Inc. is the world leader in the design, development, manufacture and commercialization of advanced plasma processes. We provide engineering and manufacturing expertise, cutting-edge contract research, as well as turnkey process equipment packages to the defense, metallurgical, mining, advanced materials (including 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 m<sup>2</sup> manufacturing facility, PyroGenesis maintains its competitive advantage by remaining at the forefront of technology development and commercialization. Our 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. Our operations are ISO 9001:2008 certified, and have been since 1997. PyroGenesis is a publicly-traded Canadian Corporation on the TSX Venture Exchange (Ticker Symbol: PYR) and on the OTCQB Marketplace. For more information, please visit [www.pyrogenesis.com](http://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](http://www.sedar.com), or at [www.otcmartets.com](http://www.otcmartets.com). 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 TSX Venture Exchange, its Regulation Services Provider (as that term is defined in the policies of the TSX Venture Exchange) nor the OTCQB accepts responsibility for the adequacy or accuracy of this press release.*

SOURCE PyroGenesis Canada Inc.

For further information please contact: Rodayna Kafal, VP, Investor Relations and Strategic Business Development, Phone: (514) 937-0002, E-mail: [ir@pyrogenesis.com](mailto:ir@pyrogenesis.com)

RELATED LINKS: <http://www.pyrogenesis.com/>