



**1<sup>ST</sup> DETECT, AN ASTROTECH SUBSIDIARY,  
RECEIVED THREE U.S. PATENTS FOR CHEMICAL ANALYZERS**

**Austin, Texas – Jan. 27, 2016** – 1<sup>st</sup> Detect Corporation, a subsidiary of Astrotech Corporation (NASDAQ: ASTC), was awarded three patents by the United States Patent Office (USPTO) enabling the miniaturization of ion trap chemical analyzers used for detection and analysis. This increases 1<sup>st</sup> Detect's total patent count to 14 U.S. and nine international issued and ten U.S. and 16 international pending.

"These patents protect a key advantage of 1<sup>st</sup> Detect products, the ability to perform high quality chemical analysis directly in the field without the need to transport samples to a laboratory," said Thomas B. Pickens III, Chairman and CEO of Astrotech Corporation. "Our patented technology enables us to address new applications and markets that are not served by traditional chemical analyzers."

**Patent Details**

- U.S. Patent No. 9,196,467 entitled, 'Mass Spectrum Noise Cancellation by Alternating Inverted Synchronous RF' represents a key technological advantage for 1<sup>st</sup> Detect to deploy its novel miniature chemical analyzer technology into security and environmental applications where the size and complexity of traditional mass spectrometers have prevented their use. The technology protected by this patent demonstrates 1<sup>st</sup> Detect's ability to use novel methods to reduce noise and improve the signal without the need for additional circuitry or hardware.
- U.S. Patent No. 9,214,321, entitled, 'Method and Systems for Applying DC Bias in Ion Traps' represents a key technological advantage for 1<sup>st</sup> Detect, because it allows 1<sup>st</sup> Detect's ion trap to adapt in real time in response to changing environmental conditions, different samples, and changes over the lifetime of the instrument, which would normally require frequent calibrations by trained professionals. The technology protected by this patent will enable 1<sup>st</sup> Detect to continue to expand into novel applications outside of the laboratory while maintaining the high performance of traditional instruments.
- U.S. Patent No. 9,214,325, entitled, 'Ion Trap with Radial Opening in Ring Electrode' represents a key technological advantage for 1<sup>st</sup> Detect to deploy its novel miniature chemical analyzer technology into critical security and threat detection applications where the size and complexity of traditional mass spectrometers have prevented its use. The technology protected by this patent demonstrates 1<sup>st</sup> Detect's ability to adapt our ion trap technology to interface with next generation ion sources which will enable security, military, and first responders to detect a much wider range of threats than is possible with currently fielded equipment.

**About 1<sup>st</sup> Detect Corporation**

1<sup>st</sup> Detect, a subsidiary of Astrotech Corporation (NASDAQ: ASTC), develops, manufactures, and sells powerful, sensitive, and accurate chemical analyzers that streamline processes for industrial use in the food and beverage, semiconductor, pharmaceutical, healthcare, research, and environmental markets, as well as for government applications used in explosive and chemical warfare detection for the Department of Homeland Security and the military. The company's core mass spectrometry technology

was first developed under an agreement with NASA for use on the International Space Station. The unit is capable of detecting a wide variety of chemicals including residues and vapors from explosives, chemical warfare agents, toxic chemicals, food & beverage contaminants, and pollutants. These capabilities, combined in an economically priced, transportable, and ruggedized solution, make it an ideal tool for a variety of applications. For more information on 1<sup>st</sup> Detect Corporation, please visit [www.1stDetect.com](http://www.1stDetect.com).

### **About Astrotech Corporation**

Astrotech Corporation (NASDAQ: ASTC) identifies and commercializes emerging disruptive technologies through its closely held subsidiaries. Management sources investment opportunities from various government laboratories, agencies, universities and corporations, as well as through its own internal research. Sourced from Oak Ridge Laboratory's chemical analyzer research, **1<sup>st</sup> Detect** develops, manufactures, and sells chemical analyzers that streamline processes for industrial use in the airport security, food and beverage, semiconductor, pharmaceutical, research, and environmental markets, and the military. Sourced from decades of image research from the laboratories of IBM and Kodak combined with classified satellite technology from government laboratories, **Astral Images** sells film to digital image enhancement, defect removal and color correction software and post processing services providing economically feasible conversion of television and feature 35mm and 16mm films to the new 4K ultra-high definition (UHD), high-dynamic range (HDR) format necessary for the new generation of digital distribution. Sourced from NASA's extensive microgravity research, **Astrogenetix** is applying a fast-track on-orbit discovery platform using the International Space Station to develop vaccines and other therapeutics. Demonstrating its entrepreneurial strategy, Astrotech management sold its state-of-the-art satellite servicing operations to Lockheed Martin in August 2014. Astrotech has operations throughout Texas and is headquartered in Austin. For information please visit [www.astrotechcorp.com](http://www.astrotechcorp.com).

*This press release contains forward-looking statements that are made pursuant to the Safe Harbor provisions of the Private Securities Litigation Reform Act of 1995. Such forward-looking statements are subject to risks, trends, and uncertainties that could cause actual results to be materially different from the forward-looking statement. These factors include, but are not limited to, continued government support and funding for key space programs, product performance and market acceptance of products and services, as well as other risk factors and business considerations described in the Company's Securities and Exchange Commission filings including the annual report on Form 10-K. Any forward-looking statements in this document should be evaluated in light of these important risk factors. The Company assumes no obligation to update these forward-looking statements.*

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