


In the Matter of: SHINE MEDICAL TECHNOLOGIES, INC. (Medical Radioisotope Production Facility)	
Commission Mandatory Hearing	
	Docket #: 05000608 Exhibit #: SHN-017-MA-CM01 Admitted: 12/15/2015 Rejected: Other:
	Identified: 12/15/2015 Withdrawn: Stricken:

GREG PIEFER

2555 INDUSTRIAL DRIVE MONONA WI 53713 608.210.1061

EXPERIENCE

JANUARY 2010 TO PRESENT SHINE Medical Technologies Monona WI
 CHIEF EXECUTIVE OFFICER

AUGUST 2005 TO JANUARY 2010
 PRESIDENT Phoenix Nuclear Labs Monona WI

AUGUST 2004 TO DECEMBER 2006
 CHIEF TECHNOLOGY OFFICER Gillware Data Recovery Madison WI

BOARDS OF DIRECTOR

- 2010 to Present SHINE Medical Technologies
- 2008 to Present Phoenix Nuclear Labs
- 2010-2015 Council on Council on Radionuclides and Radiopharmaceuticals (CORAR)
- 2012 to Present University of Wisconsin Department of Physics Board of Visitors
- 2015 Madison Symphony Board of Directors

EDUCATION

- UNIVERSITY OF WISCONSIN- MADISON 2006
 Ph.D. Nuclear Engineering with Minor in Medical Physics
- UNIVERSITY OF WISCONSIN – MADISON
 Master’s Degree Nuclear Engineering 2004
- UNIVERSITY OF WISCONSIN – MADISON 1999
 Bachelor Degree, Physics
 Bachelor Degree, Electrical and Computer Engineering

HONORS

- 2015 UW Madison Early Career Award
- 2010 Madison's 40 Under 40
- 2007 Honorary Associate, UW Madison
- 2004 James Paulkey Award for Excellence in Nuclear Engineering
- 2003 NASA LERCIP Fellowship
- 1997 Hilldale Undergraduate Research Fellowship

U.S. PATENTS

Piefer, Gregory. 2007. High energy proton or neutron source. USA Patent Application US 12/810,958, filed Sep 16, 2014, Grant

Piefer, Gregory. 2010. Method and apparatus for performing active neutron interrogation of containers. USA Patent Application US 13/515,487, filed May 5, 2015, Grant

Piefer, Gregory. 2011. Methods of separating medical isotopes from uranium solutions. USA Patent Application US-2012-0300891 A1, filed Apr 30, 2012 Application

Piefer, Gregory, 2011. Segmented reaction chamber for radioisotope production. USA Patent Application US-2012-0300890 A1, filed Nov 29, 2012 Application

Gregory Piefer, 2008. Device and method for producing medical isotopes. USA Patent Application US-2011-0096887 A1, filed May 1, 2009 Application

PUBLICATIONS

2000 G.L. Kulcinski, R.P. Ashley, J.F. Santarius, G. Piefer, K.M. Subramanian, "The Development of Lunar ^3He Resources: Near-Term Applications and Long-Term Prospects," 4th International Conference on Exploration and Utilization of the Moon, Noordwijk, The Netherlands, July 10-15, 2000

2002 R.P. Ashley, G.L. Kulcinski, J.F. Santarius, S. Krupakar Murali, G.R. Piefer, B.B. Cipiti, J. Weidner, R.F. Radel, "Fusion Product Source Regions in the IEC Fusion Reactor," Fifth U.S.-Japan Workshop on IEC Fusion, 9-10 October 2002, Madison WI

2002 B.B. Cipiti, G.L. Kulcinski, J.F. Santarius, R.P. Ashley, G.R. Piefer, S. Krupakar Murali, J.W. Weidner, R.F. Radel, "Embedded Fusion and Isotope Production in the UW IEC Device," Fifth U.S.-Japan Workshop on IEC Fusion, 9-10 October 2002, Madison WI

2003 J.W. Weidner, G.L. Kulcinski, J.F. Santarius, R.P. Ashley, G. Piefer, B. Cipiti, R. Radel, and S.K. Murali, "Production of ^{13}N via Inertial Electrostatic Confinement Fusion," Fusion Science and Technology, Vol. 44, p. 539 (2003)

- 2003 R.P. Ashley, G.L. Kulcinski, J.F. Santarius, S. Krupakar Murali, G.R. Piefer, B.B. Cipiti, R.F. Radel, and J.W. Weidner, "Recent Progress in Steady State Fusion Using D-3He," *Fusion Science and Technology*, Vol. 44, p. 564 (2003)
- 2003 G.L. Kulcinski, J.W. Weidner, B.B. Cipiti, R.P. Ashley, J.F. Santarius, S.K. Murali, G.R. Piefer, and R.F. Radel, "Alternate Applications of Fusion-Production of Radioisotopes," *Fusion Science and Technology*, Vol. 44, p. 559 (2003)
- 2004 J. Gilland, G. Piefer, "Small Helicon Plasma Source Experiments," 40th AIAA/SAE/ASEE Joint Propulsion Conference and Exhibit, July 11-14, 2004, Fort Lauderdale, FL
- 2005 G.R. Piefer, J.F. Santarius, R.P. Ashley, G.L. Kulcinski, "Design of an Ion Source for 3He Fusion in a Low Pressure IEC Device," *Fusion Science and Technology*, **47**, 4, pp. 1255-1259 (2005)
- 2006 G.R. Piefer, "Performance of a Low-Pressure, Helicon Driven IEC 3He Fusion Device," Ph.D. thesis, University of Wisconsin-Madison (2006)
- 2010 D. C. Donovan, D. R. Boris, G. L. Kulcinski, J. F. Santarius and G. R. Piefer, "Measuring D(d,p)T fusion reactant energy spectra with Doppler shifted fusion products, *Journal of Applied Physics*, **107**, published online 25 June 2010
- 2011 G.R. Piefer, K.M. Pitas, E.N. Van Abel, T.R. Mackie, T.A. Heltemes, R.V. Bynum and T.T. Gribb, R.F. Radel "Mo-99 Production Using a Subcritical Assembly", Annual Mo-99 Topical Meeting, December 4-7, 2011, Santa Fe, New Mexico
- 2012 D. C. Donovan, D. R. Boris, G. L. Kulcinski, J. F. Santarius and G. R. Piefer, "Measuring time of flight of fusion products in an inertial electrostatic confinement fusion device for spatial profiling of fusion reactions", " *Review of Scientific Instruments*, **84**, Online 05, March 2013
- 2015 G.R. Piefer, K.M. Pitas, "SHINE Technology and progress toward U.S.-based molybdenum-99 production", *The Journal of Nuclear Medicine*, **56**, 3, pp. 165, 5 May 2015