Shane Needham, Ph.D.

2506 Itani Drive, Moscow, Idaho 83843 (208) 301-3053

shane@needhamscientific.com

LinkedIn: Shane-Needham-b014151

#### EXECUTIVE SUMMARY

Charismatic leader and achiever with a proven track record of success in all aspects of life including; fatherhood, science, business and coaching:

* 30-years industry expert in LC-MS/MS and GC-MS/MS bioanalysis
* Over 21 years Profit & Loss responsibility at four companies
* Business development for bioanalytical labs, mass spectrometry and chromatography vendors
* Lead in building analytical labs and their teams
* Instructor at many courses in LC-MS at international venues
* Requested keynote and plenary speaker and expert author in industry events and journals, respectively
* More than 200 publications and presentations in MS/MS bioanalysis
* Ted Talk Speaker
* Directing GLP LC-MS laboratories
* Designing, building and staffing, GLP laboratories.
* Consult with laboratories to improve productivity and efficiency
* Placement of key metrics to improve performance and profit and loss of laboratories
* Experienced instructor and presenter at international and local technical conferences and client sites
* Teach entrepreneurship
* Coached nine state champion wrestlers and many state placers
* Grew the wrestling club by more than 400% in five years
* Idaho State Champion Powerlifter
* Regional Champion Bodybuilder

##### CORE COMPETENCIES

|  |  |  |
| --- | --- | --- |
| Public Speaking | Productivity and Efficiency Metrics | Entrepreneurship |
| Coaching and Leading | Bioanalytical LC-MS/MS | Laboratory Operations |
| Sales and Marketing | Author | Company Valuations |
| Business Exit Plans | Corporate Governance |  |

##### WORK EXPERIENCE

# 2000-Present Founder, Owner, Director

**Needham Scientific, Inc.**

* Bioanalytical MS/MS Consulting
* Business Development for bioanalysis, mass spectrometry and chromatography vendors
* Broad experience in bioanalytical labs including designing, building and staffing labs.
* Business and start-up advisement
* Expert witness services

# 2020–Present Founder and Host of Podcast “Secrets of Success with Dr. Shane Needham”

**Moscow, Idaho**

* Business topics
* Science topics
* Lifestyle and health topics

# 2000–Present Founder, Owner, Director

**Alturas Analytics, Inc. Moscow, Idaho**

* Founding company in 2000
* Served as Laboratory Director until 2018
* Served as Chief Scientific Officer from 2018-2020.
* Managed all aspects of the business including marketing plan, vision, staffing, marketing, sales and all lab design and operations
* Grew the company organically with annualized double-digit growth from 2000-2020
* Awarded one of the fastest growing companies by Fortune 5000 in 2014

 ***1993 –2000* *Scientist***

#  Bioanalytical Mass Spectrometry Group, Pfizer Inc. Groton, CT

* Started as Lab Assistant and promoted to Assistant Scientist and Associate Scientist
* Performed all aspects of quantitative bioanalysis using triple quadrupole mass spectrometers
* Performed all aspects of qualitative structure elucidation with triple quadrupoles, Q-TOF and TOF instruments
* Rated top performer in my peer group every annual review cycle

***1992 – 1993 Analyst***

**Anatek Labs, Moscow, Idaho**

* Responsible for environmental analysis of soil and water samples using GC-MS, GC and IR

***1990 – 1992 Analyst***

**Precision Analytics, Inc. Pullman, WA**

* Responsible for environmental analysis of soil and water samples using IR

***1991 – 1993 Lab Assistant***

**Washington State University, Pullman, WA**

* Used supercritical fluid extraction (SFE) and supercritical fluid chromatography (SFC) for analysis of research samples

***2010-2018 Head Coach and Director, Moscow Wrestling Club***

**Moscow, Idaho**

* Grew club by over 400% in members
* Had one of the lowest club attrition rates in the nation
* Coached nine state champions and many other state placers

###### EDUCATION

* **University of Rhode Island, Ph.D.,** Analytical Chemistry, Kingston, RI (2000)
	+ **Dissertation: Optimized Stationary Phases for LC-MS**
* **Washington State University**, B.S. Chemistry (American Chemical Society certified), Pullman, WA (1993)

###### HIGHLIGHTS OF RESEARCH PUBLICATIONS POST 2010

* **Simultaneous Extraction and Analysis of Multiple Cystine Dense Peptides by µSPE and Microflow LC-MS/MS from Plasma.** *Bioanalysis* **11:6**, (2019) Shane R. Needham et. al.
* **Microspray and Microflow Liquid Chromatography: The Way Forward for LC-MS Bioanalysis.** *Bioanalysis* **9:24**, (2017) Shane R. Needham.
* **Microspray and Microflow LC-MS: The Perfect Fit for Bioanalysis.** *Bioanalysis* **7:9**, (2015) Shane R. Needham and Gary A Valaskovic.
* **Recent Advances in the Application of Dried Matrix Spotting for Analysis of Drugs and Their Metabolites.** *Bioanalysis* **5:20**, (2013) Shane R. Needham.
* **Micro LC-MS/MS: The Future of Bioanalysis.** *Bioanalysis* **5:11**, (2013) Don W Arnold and Shane R. Needham.
* **The Advantages of Microflow LC-MS/MS Compared to Conventional LC-MS/MS for the Analysis of Methotrexate from Human Plasma.** *Bioanalysis* **5:11**, (2013) Chad C. Christianson, Casey CL Johnson and Shane R. Needham.
* **Use of Conventional Bioanalytical Devices to Automate DBS Extractions in Liquid-Handling Dispensing Tips.** *Bioanalysis* **3:20**, (2011) Shane R. Needham et. al
* **Development and Validation of an HPLC-MS/MS Method for the Analysis of Dexamethasone from Pig Synovial Fluid Using Dried Matrix Spotting.** *Bioanalysis* **2:11**, (2010) Shane R. Needham, et. al.

**HIGHLIGHTS OF KEYNOTE, PLENARY LECTURES AND CONFERENCE REPSONSIBILITIES**

* **MRM Based Peptide Quantitation Using a Novel Triple Quadrupole Instrument, Keynote Presentation, Analyticon 2020,** Virtual, November 2020
* **Future Analytical Devices for Personalized Medicine, Plenary Lecture,** CPSA Brazil, Sao Paulo, Brazil, August 2015
* **Microflow LC-MS/MS, the Future of Bioanalysis, Plenary Lecture,** CPSA Brazil, Sao Paulo, Brazil, July 2014
* **CPSA USA, Conference Program Chair,** Langhorne, PA, October 2013

###### EXPERT WITNESS CASES

* **Federal Jury Rules in Favor of Local Farmers, Finds Bureau of Land Management and Dupont Negligent in Use of Herbicide, August 2009, Boise, Idaho.** Dr. Shane Needham provides key expert testimony in reviewing the analytical LC-MS/MS data to determine the detection of the herbicide in soil and crops $113 million.

**AWARDS**

* **FASTEST GROWING COMPANY, Alturas Analytics, Inc.** from FORTUNE 5000 INC 2014

**PROFESSIONAL ASSOCIATIONS**

* American Chemical Society (ACS)
* American Association of Pharmaceutical Scientists (AAPS)
* American Society for Mass Spectrometry (ASMS)

###### KEYWORDS

GLP, Leadership, Business Development, Bioanalysis, Public Speaker, Efficiency, Productivity, HPLC, LC-MS, Mass spectrometry, chromatography, Analytical chemistry, Design, Staffing, Start-ups, Entrepreneurship, Exit Strategies