

# About Pinpoint Science

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## Pinpoint Science Inc. (PSI)

### Stakeholder(s):

#### Nader Pourmand :

We are working to commercialize this technology, based on functionalized nanopipettes developed by Dr. Nader Pourmand, Professor of BioMolecular Engineering at the University of California at Santa Cruz and Pinpoint's Chief Scientist. This patented technology has been validated in numerous peer-reviewed publications. — Pinpoint's Chief Scientist Dr. Nader Pourmand and Professor of Biomolecular Engineering and director of the UCSC Genome Technology Center at the University of California Santa Cruz, Baskin School of Engineering, is the inventor of this novel technology. Pourmand also leads the Biosensors and Nano/Bioelectrical Technology Group at the UCSC School of Engineering. The lab's primary goal is to further develop biological and electrical technologies that aid in the study of genes and proteins. Pourmand and his team hold over twenty patents. Pourmand has been published in more than 80 scientific journals including the Oxford University Press, Cancer Research, PLoS ONE and the Proceedings of the National Academy of Sciences.

#### Lisa Diamond :

Pinpoint's CEO Lisa Diamond has a 40-year track record of technology innovation and senior engineering management, from pioneering development in molecular diagnostics and computational genomics to financial and trading applications, business intelligence and analytics, computer animation, digital video and more. She has collaborated with Dr Pourmand over the last twelve years to develop novel molecular diagnostics for pathogens including pandemic influenza, human papilloma virus, and drug-resistant TB, and holds two patents for novel molecular diagnostics. Diamond is also principal software and systems architect with San Francisco non-profit Global Viral. As systems architect and developer at the Stanford Genome Technology Center for ten years, she built software to generate molecular probes for colon and esophageal cancer, pandemic influenza, drug-resistant TB, and human papilloma virus, and developed novel software to analyze the vaginal microbiome. Other software innovation at startup Pathogenica focused on panels of multiplexed probes to identify pathogens and characterize resistance and virulence. As VP of Engineering at Black Pearl, she led development of innovative AI business applications. Lisa led streaming wireless and data visualization development for equity trading as VP of Technology Innovation at Reuters, and led the Market Data Engineering team at their Tibco Finance Technology division in Palo Alto. Prior to that, as vice president of Architecture and Strategy for Global Market Data Systems at Merrill Lynch, she was responsible for key trading floor infrastructure and applications in Tokyo and New York. Earlier in her career, Lisa pioneered groundbreaking real-time graphics, animation and digital video systems.

#### Ashley Allen :

Pinpoint's CTO Ashley Allen leads software development for the Pinpoint. Ashley is a career technologist and entrepreneur with over 25 years of experience developing enterprise solutions for public and private entities. At non-profit Global Viral, Ashley designed and built a cloud-based, collaborative information and project management solution for the Boundaries of Life project searching for novel life forms. For the International Livestock Research Institute in Nairobi, Kenya, Ashley built a data visualization tool to track the distribution of cattle breeds across Africa. As VP of Innovation at Reuters TIBCO Finance Technology, Ashley led a team focused on next-generation technology for Reuters and its customers, including mobile trading applications, real-time content delivery networks, and market data distribution and analysis. At the Lawrence Livermore National Laboratory, Ashley developed distributed services and networking protocols for the Livermore Network Communication System.

#### Dr Brad S Schneider, PhD :

Pinpoint's Chief Microbiology Officer Dr. Brad S Schneider is a seasoned public health professional with extensive experience conducting high-impact scientific, public health, and capacity building programs in the US, Africa, and Asia. With over 18 years of experience in the field, he has worked with a broad range of pathogens, including Ebola, avian influenza, and West Nile viruses, in a diversity of settings, including some of the most logistically challenging regions of the world. Dr. Schneider is adept at managing multi-laboratory research teams to successfully complete complex, multidisciplinary projects with shifting priorities and loosely defined deliverables, requiring close coordination with US government agencies and host country communities and ministries. Working in both the government (e.g. Centers for Disease Control) and private sector (e.g. Institut Pasteur and Metabiota, Inc) he has employed diplomacy and cultural sensitivity to establish productive international networks that deliver high-quality, impactful technical products. He is a leader in the identification, development, and management of new capabilities and processes, working across scientific functional groups, to strategically integrate scientific expertise and technologies to support the implementation of biomedical programs, providing insights, innovation, and structure. His activities have been funded by US Agency for International Development (USAID), the National Institutes of Health (NIH), Defense Advanced Research Projects Agency (DARPA), the Defense Threat Reduction Agency (DTRA) Cooperative Biological Engagement Program (CBEP), the Department of Homeland Security, the Department of State, and Google.org. Dr. Schneider developed country-level operational plans and guided the global diagnos-

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*Stakeholders (continued)*

tic strategy that is currently deployed in over 25 countries for the USAID Emerging Pandemic Threats PREDICT program, a highly successful \$100 million endeavor focused on strengthening capacities in developing countries to prevent, detect, and control infectious diseases in animals and people, with an emphasis on early identification of, and response to, dangerous pathogens before they can become significant threats to human health. Dr. Schneider has served globally in leadership and advisory roles as a member of academic, ethics, review and search committees. During his scientific career, he has published over 65 peer-reviewed manuscripts on a broad spectrum of infectious disease topics, including viral, bacterial, and parasitic pathogens.

**Angelike Kefalas, MBA :**

Pinpoint's Chief Marketing and Business Officer Angelike Kefalas has more than 20 years of experience in the diagnostic, medical device and pharmaceutical industry. She has a rich background in commercializing FDA-approved 510(k) products and selling to healthcare professionals, hospitals, physicians, patients/consumers and payers. In addition, she has built high performing commercial launch teams from the ground-up at several start-ups. Before Pinpoint, Angelike was Head of Global Marketing and Communications at Medicines360, successfully launching LILETTA®, a 510(k) FDA and EMA-approved pharmaceutical drug-device product, with Medicines360's co-promote partner Allergan. Before that, she was Vice President of Marketing at Amplify Health and Executive Director, Strategic Marketing at Tethys Bioscience, a molecular diagnostic company that commercialized and sold PreDx®, a 7 biomarker CLIA approved blood test. She also was the Director of Strategic Marketing, Market Research and Analytics at Abbott Diagnostics, relaunching the FreeStyle Glucose Meter, a POC consumer-driven med-device. Throughout her career, Angelike has been involved in 7 product launches, 4 of which have been global. Angelike's areas of expertise include: product and company positioning, developing go-to-market commercial strategy, optimizing sales growth, and business development. Angelike holds an MBA from Columbia Business School, Columbia University, NY and a Masters degree from Haas Business School, University of California Berkeley (through a joint degree program). She also received her B.S. from Brandeis University in Molecular Biology.

**Dr Geetha Rao, PhD :**

Pinpoint's Regulatory Leader Dr. Geetha Rao is an entrepreneur, executive, and strategic advisor to medical device, health-care, and philanthropic organizations, addressing issues for high-risk technologies, including medical devices, health IT, and connected health systems. Particular focus on agile quality management and compliance strategy for rapid commercialization. She is an internationally recognized expert in risk management for governmental regulatory agencies and serves on international standards and policy making bodies. She has addressed numerous industry forums and the press on issues of emerging health technologies and innovation trends, especially for connected medical technologies. She holds a PhD from MIT in Engineering and a Masters degree from Stanford Business School.

**Dr Kilian Dill, PhD :**

Kilian Dill brings decades of Biochemistry Lab experience to Pinpoint Science. Before joining Pinpoint, Kilian was the VP of

Biochemistry at Multerra Biosciences and a former Professor of Chemistry at Clemson University. He has also held senior positions at CombiMatrix Corp, Stemgenics, Protein Discovery, Inc., and Molecular Devices LLC. Kilian holds a PhD degree in Chemical Biology from California Institute for Technology (Caltech). Kilian has also authored 130 International papers, Book chapters and Books.

**Dr Scott Geller, PhD, MBM :**

Pinpoint's Director of Laboratory Science Scott Geller is a molecular neuroscientist with a deep academic background, firsthand entrepreneurial experience, and a do-it-yourself approach to wet-lab bench science. Scott earned his undergraduate degree in Behavioral and Developmental Neurobiology, and a PhD in Molecular, Cellular, and Developmental Biology, both from UC Santa Barbara. During graduate school he studied gliosis in the mammalian retina following experimental retinal detachment. Scott completed two post-doctoral fellowships, first at the University of Sydney (Australia) and then at UC Berkeley, where he gained a deeper knowledge of genomics, gene therapy, and gene regulation. Dr. Geller left the academic "track" and moved to Kiev, Ukraine in 2007, where he landed a position as the Chief Project Scientist (on the ground) leading a scientific team of six for large Defense Threat Reduction Agency contract (US DOD). The project involved the design and construction of BSL-2 and BSL-3 laboratories specifically outfitted for the rapid identification, safe handling, and proper storage of especially dangerous pathogens. The science team was responsible for all in-country scientific expertise regarding laboratory design and construction, equipment and reagent procurement, and training of personnel in biosafety and molecular diagnostic assays for both human and animal pathogens. Also, while living abroad, Dr. Geller earned a Master's degree in Biotechnology Management (specialized MBA) from IE Business School. This business experience, combined with the formal business education from IE, laid the foundation for Scott's future entrepreneurial endeavors. In 2012 Dr. Geller returned to the U.S. and created his own BSL-2 laboratory in West Berkeley, CA (Bay Genomics, LLC). Scott continues to leverage his unique skill set and private laboratory to support diverse biotechnology-related projects and companies, including Pinpoint Science. Scott is an inventor on published patents, has published over 20 peer-reviewed articles and book chapters, and continues to broaden his knowledge at every available opportunity.

**Deanna Roquemore :**

Deanna Roquemore, an early contributor to Pinpoint, knew 50 years ago that computer technology was the future. In 1974 she joined the Department of Computer Science at Southern University-Baton Rouge, LA. Deanna's expertise is in programming languages and database management. Her teaching and motivational style has assisted in the development of many black entrepreneurs and managers in the business world today. She brought cloud computing to Southern in 2009 through the assistance of an IBM Research Grant with the intent of bridging the computer gap between departments on campus, local schools and the small businesses community. She has worked for Bell Laboratories, NASA's Industrial Applications Centers (IAC) and the Office of Management and Budget. Deanna is the Founder and Co-Chair of the Dr. Leroy Roquemore Foundation which provides scholarships to students in financial

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need. She was a leader in the development of an annual computer science seminar series and Career Fair for the University. She holds a Masters and Bachelors Degree in computer science and is a life member of the Girl Scouts of America.

**PSI Scientific Advisors****Ron W. Davis, PhD :**

Director, Stanford Genome Technology Center Professor, Biochemistry and Genetics Stanford University School of Medicine

**Lark Coffey, PhD :**

Assistant Professor, Center for Vectorborne Diseases, and Department of Pathology, Microbiology and Immunology School of Veterinary Medicine, University of California, Davis

**Stephen M. Becker, MD :**

Former Deputy Director, HIV, Gates Foundation, former Professor, UCSF & UW School of Medicine

**Stanley Falkow, PhD :**

Professor, Microbiology and Immunology Stanford University School of Medicine (An early Advisor to Pinpoint Science) 1934-2018 In Memoriam - Stanley Falkow - Who saw how bacteria cause disease

**Pinpoint Science Stakeholders :**

Potential applications include human infectious disease diagnosis, pathogen surveillance for agriculture, ranching, veterinary medicine, wildlife management; monitoring infectious disease agents among poultry, wildfowl and insect vectors; detecting microbial contamination in food processing and so much more.

## Vision

Detection, diagnosis and surveillance of infectious disease is transformed worldwide

## Mission

To create a new category of instant bio-electronic diagnostics

## Values

**Timeliness:** For Real-Time Testing -- Pathogens such as viruses, bacteria and fungi can be accurately and rapidly detected with a handy, easy-to-use handheld device. \* No laboratory, \* No technicians, \* No refrigeration, \* No reagents, \* No sample preparation needed.

**Simplicity:** Our general-purpose platform uses swappable cartridges to detect specific pathogens in samples of blood, saliva or other biofluids.

**Flexibility:** Pinpoint's multi-channel nanosensors can detect specific markers of infectious disease: viral and bacterial proteins, host antibodies, and nucleic acid sequence.

**Speed:** Fast. Results are displayed in less than 30 seconds.

## Biomolecules

*Enable detection of specific biomolecules*

Bioelectronic Technology — We use novel biosensor technology to make possible label-free electrical detection of specific biomolecules with great precision and at low cost.

### Administrative Information

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