

We Get Your Ideas out of the Lab and into the Market

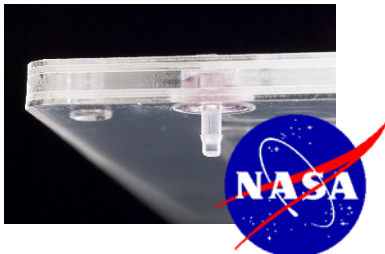
- ✓ Single Use Diagnostic Cartridges for Point of Care and Rapid testing.
- ✓ Multiplexed Fluid Handling Manifolds for Life Science Analysis
- ✓ Cell Culture and Organ-on-Chip Devices for Pharmaceutical Discovery and Development
- ✓ Wearables for Pharmaceutical and Consumer Applications



Experts in the Design, Engineering and Manufacture of Microfluidics

Microfluidics = Miniaturized, Automated Fluid Handling

- ✓ Experienced Team of Ph.D. & Eng. & Mfg. Experts
- ✓ Assay Development & Sample Prep
- ✓ Sensor and Detection Integration
- ✓ Cleanroom Manufacture and Assembly
- ✓ Certified Project Management Professional
- ✓ 18 Years of Delivering Success to our Clients



ALINE

Products



ALine's proprietary valve manifold in the Perfusion V5



BIOREP
DIABETES



SPEC
SENSORS

ALine manufactures laminate components for these high performance gas sensors

ISO13485:2016 Certified



Conquering Complexity with Experience and Focus

- ✓ Successful Delivery to Tight Timelines
- ✓ Structured Programs Address Key Technical Hurdles
- ✓ Toolbox of Custom Off the Shelf Solutions
- ✓ Rapid Prototyping with Multiple Technologies
- ✓ Fast Design-Build-test Cycles < 2weeks
- ✓ Design for Manufacture
- ✓ Pilot Production Under ISO13485 Certified QMS
- ✓ Well-Networked with Industry Experts and Suppliers



Phased Development Approach

Phase 0
Engineering Feasibility

- Identify fluidic components.
- Address key technical risks
- Timeline: 4-8 weeks
- Budget 30-50k

Phase 0

Phase 1
Proof of Concept

- Integrate assay protocol with instrument control
- Optimization of microfluidics, assay and instrument actuation.
- Timeline: 3 - 12 months
- # Units: 100s/month
- Budget: 350 -750k

Phase 1

Phase 2
Proof of Principle

- Integrate reagents.
- Consumable architecture and DFM with injection molded components.
- Testing with clinical samples.
- Scale up for clinical trials
- # Units: 10,000 or more
- Timeline: 6 - 9 months
- Budget: 500 -750k

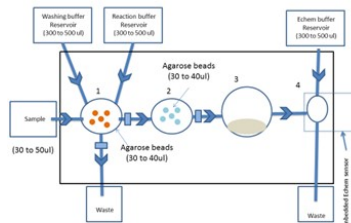
Phase 2

Phase 3
Clinical Trials

- Design lock and scale for clinical trials.
- Supply chain development
- Prepare for product transfer to volume manufacture
- Production to support product launch
- # Units: 1000s to 10,000s
- Timeline: 3 - 9 months
- Budget: 250 -750k

Phase 3

Proposed Cartridge Design (Please see next slide for number description)



Capabilities

- Batch manufacture up to 100k parts/year under ISO13485 QMS.
- CNC machining to 200 um x 100 um deep
- Integration of thin, fragile, flexible, optical and porous materials.
- Bonding of glass, silicon, other components.
- Assembly with pressure sensitive adhesives, thermal adhesives or direct bonding of films.

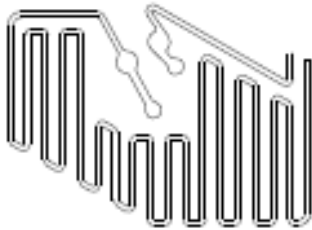
Case Studies

Ctrl+click images to view on website



alineinc.com

Sweat Patch



The wearable Sweat Patch aims to harness the biological information in sweat to provide individuals with real-time data to understand their hydration needs.

Single Use Cartridge: Passive Whole Blood Processing And Sensor Integration



Whole Blood Point-of-Care Test systems must be precise as the results gathered could negatively affect patient diagnoses and treatment.

Molecular Diagnostics



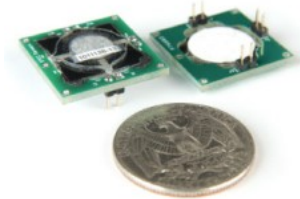
The Genmark eSensor XT8 is a molecular diagnostic to determine a patient's genetic propensity to metabolize the blood thinner, warfarin. It was commercialized in 2009 and was awarded the MDEA

Cell Culture in Space



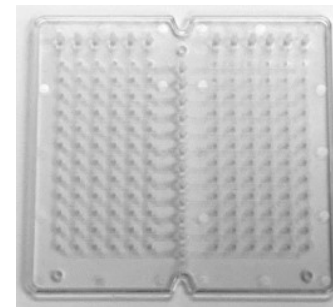
In 2006 NASA came to ALine to help realize their vision of studying the effects of weightlessness and space radiation on the growth of living systems.

Gas Sensors



The team at SPEC Sensors are leaders in gas sensing technology. ALine worked with SPEC to develop laminate, high performance gas sensors gas sensors.

Biorep Diabetes Perifusion System V5



The Perifusion System v5 performs ex vivo testing of islets of Langerhans. A new milestone in diabetes research, this technology enables groups of islet cells to be studied in a variety of environments.

Contact Us – We'd love to learn more about your application



alineinc.com



Dr. Leanna Levine PhD

- CEO, Founder
- 30+ yrs, bioanalytical technology, Immunoassay, HTS, membrane manufacture
- Several patents
- Pfizer, Monsanto, Spectrum

llevine@alineinc.com

C: 1+ 310-739-5026

P: 1+ 877-707-8575 x 7002



Dr. Stefano Begolo PhD, PMP

- Director of Engineering
- 10+ years in the field
- Patented slip-chip tech. – CalTech
- Droplet Microfluidics
- DNA & protein based assays on chip
- Range of microfab techniques

sbegolo@alineinc.com

C: 1+ 626-394-2054

P: 1+ 877-707-8575 x 7010



Arie Shen, MBA

- Director, Business Development
- Diverse background in Business Development and Strategic Growth
- Investor partnering
- Strategic marketing

ashen@alineinc.com

C: 1+ 949-235-4375

P: 1+ 877-707-8575 x 7004