



# Newsletter

750 Battery Street, 7th Floor San Francisco, CA 94111  
T: 650.695.0400 F: 650.695.0401  
www.bandangels.com

Volume 23, Issue 8

## Introduction

August 11, 2017

**Chairman**  
Ian Patrick Sobieski

**SiG Leaders**  
**Accelerators/VC**  
Sanjiv Taneja  
Jack Guedj

**AeroAstro**  
Thomas Dittler

**AgFood Tech**  
Jaleh Daie  
Michael Geilhufe

**Digital Disruption**  
Aron Bohlig

**Energy**  
Larry Kelly

**Life Science/MedTech**  
Mike Bates  
Rich Juelis

**Luminary**  
Robert Kyle

**Software**  
Ron Weissman  
Heather Crawford

**Wearables, Consumer  
& Semiconductor**  
Kurt Petersen  
Bruce Walicek

**Deal Screening Committee**  
Mike Bates  
Juan-Antonio Carballo  
Bill Loesch  
John Ferrell  
V.K. Rajaram  
Paul Twombly

**Membership Committee**  
Ken Arnold  
Ed Bierdeman  
Brian Frenzel  
Randy Fowler  
Pat Guerra  
Craig London  
Liliana Nordbakk  
Mark Putney  
Karen Riley

**Deal Dinner**  
**Date:** Wednesday, Aug 16th  
**Place:** Los Altos Golf and  
Country Club  
**Time:** 6:15 PM - 9:00 PM

**Second Look**  
**Date:** Thursday, Sept 21st  
**Place:** The Bently Reserve  
San Francisco  
**Time:** 12:00 PM - 3:00 PM

We have had our 11th Band of Angels portfolio company IPO! ShotSpotter, Inc. (January 2006 Dinner) went public on the NASDAQ on June 7th, 2017 under symbol “SSTI”. SSTI is a gunfire detection and solutions company that triangulates gun fire to within feet of the source, in less than 45 seconds of the trigger being pulled. Where it has been deployed, it has caught criminals, exonerated police in disputed shootings, brought emergency assistance to victims in time to save their lives, and generally reduced gun violence. So in addition to making investors a profit, this company epitomizes the notion of doing well by doing good. Congratulations to Band member Gary Lauder who sponsored the company at the Band back in 2006, where it raised over \$300K.

In other portfolio news, our company iBeat (April 2016 Dinner), which makes a wearable that monitors cardiac function, closed another \$3 million in funding last month, bringing its total seed stage funding to \$4.5 million. iBeat plans to use the additional funds for key hires, to begin clinical testing, refine its sales and marketing strategies, and further scale its tooling and manufacturing operations. Portfolio company AEye (March 2016 Dinner), a robotic vision pioneer, closed a \$16 million series A venture round in June from Kleiner Perkins Caufield & Byers, Airbus Ventures, Intel Capital, Tyche Partners, and others. AEye develops advanced vision hardware, software and algorithms that act as the eyes and visual cortex of autonomous vehicles.



The Band’s 9th Annual Portfolio Day will be on Wednesday, October 4th from 8:00 AM to 6:00 PM at Wilson Sonsini Goodrich & Rosati (650 Page Mill Road, Palo Alto). Portfolio Day is not a fundraising event, what is nice to see is company after company that had obtained money from the Band and is now “growing up”. Since there are over 300 companies in our portfolio, and we can only see up to 30, please let Sonja

know which companies you would like to hear from so that we can invite them to update us on their progress. **If you don’t nominate them there is no way we can know you want to see them at Portfolio Day!** In addition to the companies, we will have education sessions from Fidelity Charitable about donor advised funds turning illiquid angel holdings into liquid tax deductions and from Corporate Tax Incentives on how our portfolio companies can offset their federal payroll tax liability with federal R&D Tax Credits. Also, Mike Bates will have a Fireside Chat on the journey to exit with Adam Vollmer, CEO of the e-bike company Faraday Bicycles (April 2013 Dinner), which was acquired in January 2017 by Pon Holdings, owner of several bike brands including Cervélo, Gazelle, Focus, and Santa Cruz. A light breakfast will be served and a lunch followed by a reception, with plenty of breaks in-between the presentations to catch up with our portfolio CEOs. Please RSVP if you plan on attending (<http://bit.ly/2017portfolioday>).

- Ian

## Welcome New Member



**Laura Oliphant** is the CEO of Translarity, a venture backed, semiconductor test startup. Prior to joining Translarity in late 2016, she was an Investment Director in Intel Capital from 2001 until her retirement from Intel in 2016. As a Corporate Venture Capital investor, Laura brought over \$1B in strategic and financial value to Intel through her investments and was awarded Intel's highest award, the Intel Achievement Award, for her contributions to Intel.

When she was part of Intel Capital, Laura made investments worldwide in semiconductor capital equipment, manufacturing robotics, new devices, and software as a service (SaaS) companies. Laura directly managed her portfolio companies, providing strategic direction and advice to the company and its Board of Directors. In addition to her investment responsibilities, Laura built strategic relationships with Fortune 500 CEO's and influencers to bring knowledge of market trends and opportunities to bear on internal corporate strategic discussions. Prior to her role in Intel Capital, Laura served as a Supply Chain Program Manager in Intel's Technology and Manufacturing Group (TMG). Laura was responsible for negotiating major technical and commercial contracts with Applied Materials, KLA-Tencor, and many other major companies. Laura was one of the key coordinators for Intel's transition to the 300 mm wafer size in their factories, a project which delivered to cost targets, and added over 10 points of gross margin to Intel. Laura received the TMG Excellence Award, Intel's second highest award, for her contributions. While she was part of the Technology and Manufacturing Group, Laura was the co-chairperson of the SEMATECH Metrology and Yield Management Advisory Group, and was part of the International Technology Roadmap for Semiconductors (ITRS) committee for yield management technology. Laura is also currently a member of the board of advisors for the UC Berkeley Skydeck Accelerator and has served on the Lawrence Berkeley Lab Innovation Grant Committee. When she was with Intel Capital, she was one of Intel's key contacts with the Haas School of Business at UC Berkeley.

Laura has also served as the volunteer Treasurer and Member of the Board of Directors for the Burlingame Soccer Club and the Redwood Junior Soccer League. For these organizations, she developed standardized business processes for the corporations and handled 501(c)3 compliance with the IRS and the State of California. Laura is a Magna Cum Laude graduate in Chemical Engineering from Manhattan College, where she received the Pen and Sword Award and is a member of Tau Beta Pi. Laura also has a AA in Photography with High Honors from Foothill College. She received her PhD in Chemical Engineering from the University of California, Berkeley, where her thesis research was centered on candidate batteries for electric cars. As part of her qualifying exam for the PhD, Laura developed research topics in the drug delivery area. Laura and her husband live in Emerald Hills, CA and have two daughters.

## Introducing “The Art of the Deal” Program

Thanks to Band member Pat Guerra for starting a new program at the Band “The Art of the Deal”, a series of educational workshops. The program is in response to recommendations and requests from a broad cross section of the membership. Ron Weissman will kick off the inaugural event on Monday, September 18th at Carr & Ferrell (120 Constitution Dr, Menlo Park) from 12:00 PM to 3:00 PM. Introduction and Overview: the role of a Band deal leader, socializing a deal, due diligence basics, deal term negotiation basics, valuation basics, preparing a deal memo, closing the deal, post deal follow-up. The needs, feedback and recommendations of the membership will drive the agenda going forward. We will call on members to lend their experience and expertise, and invite guest speakers where appropriate. For more information, please contact Patrick Guerra ([patrick@lionspeak.com](mailto:patrick@lionspeak.com)).

## Band of Angels Meetings Calendar

### Deal Dinner

Aug 16th; 6:15 PM - 9:00 PM  
*Los Altos Golf & Country Club*  
 1560 Country Club Drive, Los Altos

### Deal Screening Committee

Aug 30th; 11:30 AM - 2:00 PM  
*Wilson Sonsini Goodrich & Rosati*  
 650 Page Mill Road, Palo Alto

### Portfolio Day

Oct 4th; 8:00 AM - 6:00 PM  
*Wilson Sonsini Goodrich & Rosati*  
 650 Page Mill Road, Palo Alto

## AUGUST 2017 PROGRAM

The Deal Screening Committee met on July 26th and chose from among the 54 companies under consideration the following deals: SEMPLUS, sponsored by Band member Paul Russo, develops a multi-touch pressure sensor, designed to address and solve the needs of a 3D enhanced user experience across today's touch interfaces in automotive, mobile, gaming, virtual reality and desktop; MonARC Bio, sponsored by Band member Jonathan Leong, is leading the digital transformation of an antiquated and inefficient \$63B clinical trial industry; and Nwave Technologies, sponsored by Band member Jack Carsten, leverages its wireless, sensor, analytics, and payment technologies to disrupt the transportation market by collecting, analyzing, and monetizing parking, drivers, payments, and traffic data.

**SEMPLUS** ([www.semplus.com](http://www.semplus.com)) will be presented by Founder and CEO Alessandro Levi (415-646-6501, [alessandro@sempluscorp.com](mailto:alessandro@sempluscorp.com)) and is sponsored by Band member Paul Russo. The Semplus technology was born in Italy during Alessandro's PhD. The company was incorporated in Delaware in 2013, after having moved to the Valley in 2012 as researcher in the Material Science department at Stanford University. Gert Gremes, a Band Member, was an early investor.

Semplus is a fabless semiconductor company, developing chips to enable low-cost multi-touch pressure sensors, designed to solve the needs of a 3D-enhanced user experience across today's touch interfaces in automotive, gaming, medical, industrial, and mobile. Semplus touchscreen technology combines touch and pressure capabilities in a single touch layer with extraordinary optical clarity for better readability in sunlight. The chips to be developed consist of a very low cost optical device and AI software residing on a standard microcontroller.

Existing touchscreens use capacitive metal arrays, are commodities and have significant deficiencies:

- Sunlight readability is poor because of reflective capacitive metal layer – especially in critical markets like automotive and aerospace.
- There are limitations on curved and large displays. The future for displays in automotive and consumer electronics is curved.
- There are limitations (mechanical, calibration and cost) in today force touch displays that have limited its usefulness and its adoption.

The opportunity Semplus is going after is the capacitive layers (ITO) replacement and touch controller market, that is reaching \$8.5B in 2017. Semplus' solution is an optical touchscreen that combines multi-touch and pressure capabilities, at half the price of existing solutions, without accounting for the removal of multiple manufacturing steps. Light paths are distorted due to

pressures applied to screen. An artificial intelligence algorithm is used to calculate the locations and pressure levels. Users can wear gloves, work in humid/wet environments or use non-active stylus (a simple pencil would work). Semplus' multi-touch pressure sensor technology works also with non-glass displays such as leather, wood, HUD (Glass on Glass) greatly expanding its applications. The Semplus product is two part: a low cost optical chip and AI software on a standard low-cost micro controller.

Semplus is getting traction in automotive, industrial, medical applications where there is a clear need of curved touchscreens displays, Force-enabled, coupled with higher optical clarity, harsh and EMI environments functionality, and gloves use.

Semplus landed a strategic investment from a major German automotive OEM and is currently negotiating a Technology and Manufacturing Licensing agreement with a major Tier-1 automotive. Moreover, there are active discussions with consumer and gaming companies, for IoT and consumer applications. In 2016, Semplus generated \$50K in revenue, and is projecting \$290K in 2017, \$0.8M in 2018, \$5M in 2019, and \$40M in 2020.

Semplus' accolades include winning the Intel Business Challenge and placing in top three at the 1,000 Startups competition in Shanghai.

Semplus's CEO and Founder Alessandro is a touchscreen technology expert, former Stanford researcher and holds an Entrepreneurship/Venture Capital Master. Silvano Furlan is the co-founder and Head of Research with a strong expertise in image reconstruction systems. Randy Chan is the third co-founder and business advisor, with previous experience as an executive at E-Ink and Clear-Ink Displays. Additional team members include Alberto Grassi, VP Engineering. Grassi is responsible for Hardware architecture and development. Previously he worked at STM, Biotronik and Maxim, focusing on mixed-signal ICs and high speed fiber optical communication ICs. Flavio Scarra is VP Business

Development and spent 30 years in the semiconductor industry holding CTO and R&D Director positions in Telecommunication, Microprocessor and Flash design, at companies like Cadence and STMicroelectronics.

To date, Semplus has raised \$2.3M in seed, enabling the company to develop its core technology, file patents, build the core team, and have technology touch and pressure demonstrators available. Semplus is raising \$700K in the form of a convertible note with a \$9M cap. Existing investors have committed \$200K+. The funds will allow Semplus to complete alfa-portable DEMO units, expand its patent portfolio and position the company for a successful Series A, anticipated to close in early 2018.

**MONARC BIONETWORKS** ([www.monarcbio.com](http://www.monarcbio.com)) will be presented by Founder and CEO Komathi Stem (650-644-9189; [kstem@monarcbio.com](mailto:kstem@monarcbio.com)) and is sponsored by Band member Jonathan Leong. monARC is revolutionizing an inefficient \$63B clinical trial industry by making it simple for patients to directly share their data with researchers and participate in trials anywhere, anytime. Clinical trials are the most expensive and rate limiting step in getting new treatments to market. 80% of clinical trials are delayed due to slow patient enrollment. These delays can cost pharma and device companies millions in operational delays and billions in lost revenue. monARC's digital research platform is eliminating the reliance on brick and mortar clinics and overwhelmed doctors to find the right patients and collect quality data in the clinic. monARC will shave years off clinical trial timelines resulting in treatments getting to market faster and generating billions more in revenue for pharma and device companies.

monARC Bionetworks is a seed stage company raising \$4M. In just 9 months, with a small, nimble team, they have launched a HIPAA & CFR11 compliant digital research platform that is demonstrating product/market fit through \$2M in booked revenues. With \$4M, the company will scale up technology and expand networks to meet a \$15M customer pipeline.

The sheer tsunami of healthcare data available from the liberation of medical records, growing use of mobile and digital sensor technologies to collect health data, combined with the rising level of online patient engagement in healthcare and research presents an unprecedented opportunity to redesign clinical trials.

Unlike traditional trials that activate brick and mortar clinics first, monARC activates Patient Research Networks powered by a transformative data collection and analytics platform that converges data from clinical care and digital devices (smartphones and sensors) into a monARC Smart Health Record™. The monARC Smart Health Record™ is a holistic, computable, longitudinal medical record that can be mined with proprietary algorithms to generate insights to inform trial designs and better stratify patients. monARC is a trusted intermediary that will pre-qualify patients and provide a digital research platform that features telemedicine, wearable sensors, digital devices and mobile technologies to collect data and facilitate trial participation from anywhere, anytime.

In just 9 months, monARC has built their platform, launched their first Patient Research Network in a Rare Lung Disease and secured a contract with a major biotech company to execute a connected clinical trial. The study enrolled in three weeks vs 9-12 months for a traditional trial model. The Sponsor is thrilled with the speed and the quality of data streaming in real time. Patients are delighted to participate from the comfort of their home. monARC digital research platform has created a new data sharing economy powered by patients that is converging clinical care and digital health to introduce a new model for adaptive and pragmatic trials that are necessary to realize the full promise of Precision Medicine to personalize healthcare and improve outcomes.

Komathi Stem, Founder and CEO has 25 years of drug development expertise leading global teams (10-500 people) from Eli Lilly, AstraZeneca, Genentech and Roche combined with her 6 years of leading a Genentech Innovation Team focused on digital transformation in clinical research makes her uniquely qualified to create a scalable solution to accelerate clinical trials using digital technologies (smartphone, wearable sensors, tele-medicine). She is a recognized industry leader and an active member of the Clinical Trial Transformation Initiative that is a collaborative initiative between FDA and Duke University focused on Mobile Clinical Trials. She has formed a multi-discipline team with expertise in clinical trials, health data security and collection, mobile technologies and patient engagement to create a comprehensive end-to-end digital research platform that enables earlier and broader collaboration between patients, providers, and researchers to exponentially accelerate clinical trials.

**NWAVE TECHNOLOGIES** ([www.nwave.io](http://www.nwave.io)) will be presented by CEO Paul Fulton (408-204-0085, [paul@nwave.io](mailto:paul@nwave.io)) and is sponsored by Band founding member Jack Carsten.

Nwave is a data and analytics company focused on the transportation market. Nwave is attacking one of the most painful and difficult transportation problems to solve: parking. Drivers in big cities spend 55 hours a year searching for parking and 30% of urban traffic is parking related. Property owners and municipalities are missing out on billions of unrealized revenue. New sensor-enabled services that detect vehicle movement include dynamic pricing, pinpoint over-stay enforcement, frictionless payments, and virtualized parking supply. Nwave's analytics, based on its solution deployed in the Cities of London and Coventry, show that less than 10% of parking violations are detected and monetized. For the downtown LA area alone, that represents an annual revenue miss of \$1.3B.

Services such as Uber and Airbnb have proven that digitally connecting assets to consumers creates huge economic value. This applies equally to parking as tens of millions of privately owned spaces go online to create a virtualized supply to address today's unmet consumer demand. To enable and monetize this emerging market opportunity and others, Nwave has spent years engineering an end to end solution with the performance and reliability that has eluded predecessors in this space.

Nwave is unique in the market as it has developed, tested, and deployed hardware with the wireless waveforms, algorithms, and software that make this possible at near-zero cost, essential to deliver services at

scale. Nwave's IP was invented by physicists from the Moscow Institute of Physics and Technology; one of whom is the company's Founder and CTO and the other a current MIT Professor. In addition, the team has seasoned executives from Panasonic's Smart Cities business, and its CEO, a past Cisco GM and successful mobile, security, and wireless serial entrepreneur whose prior companies were acquired by Cisco and Silicon Labs.

Nwave sells its data analytics and payment services in SaaS and Revenue Share models. With just \$560K of seed capital, it has generated over \$245K of revenue, secured multiple resellers, and has sizeable customer deployments with over 1,500 sensors. The company has a proven service/market fit. Its high customer ROI is delivered through better parking enforcement, precise over-stay detection and frictionless payment processing. For the future of autonomous vehicle parking Nwave partnered with Jaguar Land Rover.

Nwave is looking for \$500K of new seed funding to further build the value of the company before raising a Series A of \$3M. The seed would be used to scale operations in support of revenue growth. The company is currently closing its largest deal to date, 18,866 sensors, that will also enable its first payment processing recurring revenue stream. Nwave is working with LAZ Parking, one of the world's largest parking operators managing millions of parking assets. These deals would far exceed the company's revenue predictions for this year. And most exciting, Nwave is powering an Airbnb-like shared-parking service, with a trial commencing in the Bay Area, expanding the supply of parking spaces which disrupts the traditional fixed-supply parking world.

## Recent Portfolio Updates

**Crater** (January 2017 Dinner) has been executing very well, was accepted into the NFX incubator, and expects to pitch to 70+ VCs on Demo Day in September. The valuation is increasing and there is still \$50K (out of \$300K) reserved for the Band members. Deadline to fund is August 30th. Contact Band sponsor Paul Russo ([paul@geosemi.com](mailto:paul@geosemi.com)) for more details. Crater uses a mobile platform to replace onsite surveys dramatically reducing costs for moving and relocation companies. [View deck.](#)

**LivWell Health** (June 2016 Dinner) has received investment from Band member Mark Belinsky, who joined Village Capital/Kresge Foundation and other angels in its \$750K priced-round. LivWell Health is a SaaS-based services and referral management solution sold to hospitals and long term care companies to better manage home and community based services. The company has already generated \$600K in revenue, with deployments into 40 communities across 5 states including flag ship customers like Kaiser Permanente and Riverside Health System. Abundant Venture Partners of Chicago has initiated its due diligence process to capture the remainder of LivWell Health's seed round. Please contact Band sponsor Jonathan Leong ([jonathan.leong9@gmail.com](mailto:jonathan.leong9@gmail.com)) or Alex Go, CEO ([alex@livwellhealth.com](mailto:alex@livwellhealth.com)) if you would like to participate in this last-call offering to the Band.

## Recent Presenter Updates

**Fabl** (July 2017 Dinner) held an initial due diligence call with the interested Band members and provided due diligence materials in an online folder. Fabl is in discussion with the Partners of a VC firm, a follow-on fund that is interested in investing up to \$500K behind the Band's prospective lead investment. The company is a design-driven content marketing platform for the enterprise. For more information, and to receive access to the due diligence materials, please contact Taj Forer, Co-founder and CEO, (919-619-9943; [taj@fabl.co](mailto:taj@fabl.co)).

**Hooch** (July 2017 Dinner) held an initial due diligence call with the interested Band members and CEO Lin Dai ([lin@hooch.co](mailto:lin@hooch.co)) will have a follow up in-person meeting on Wednesday, August 16th immediately prior to the Band Dinner from 4:30 PM to 6:00 PM at the Los Altos Golf and Country Club. Hooch is the first-ever subscription drink App. It is anticipating closing of \$1.5M with a lead VC this week, with an additional \$1.5M in commitments from various parties in a subsequent closing. The company just launched a new version of the Hooch App with Pay with Amazon integration, as one of Amazon's dozen launch partners in the "Subscribe with Amazon" initiative. The company just secured a partnership with VISA in Asia, which will be announced in the coming weeks, as well as several major sponsorship campaigns in the U.S. with major alcohol portfolio companies. For more information, please contact Band sponsor Jonathan Leong ([jonathan.leong9@gmail.com](mailto:jonathan.leong9@gmail.com)).

**When Labs** (July 2017 Dinner) held an initial due diligence call with the interested Band members and provided detailed due diligence materials in an online folder. Phil Strause is conducting customer references, Ron Burns reviewed the sales process, and Jayesh Sahasi is focusing on technical due diligence. For more information, please contact Band sponsor Juan-Antonio Carballo ([jantonio@ieee.org](mailto:jantonio@ieee.org)).

## Special Interest Group (SiG) Updates

**Accelerators:** will participate in the StartX Online-Only Demo Day on August 8th to August 12th and Upload VR Pitch Night on August 24th at 6:30 PM (1535 Mission Street, San Francisco). For more information, contact Sanjiv Taneja ([sanjiv@bandangels.com](mailto:sanjiv@bandangels.com)).

**AeroAstro:** a big thanks to Jacques Vallee for being Co-Chair of the AeroAstro SiG alongside Thomas Dittler. Jacques is stepping down from his Co-Chair role and if you would like to help Thomas in discovering and mentoring interesting start up teams in this domain (broadly defined: new space, new aeronautics and related services, technologies, components), please contact him at ([dittler@bandangels.com](mailto:dittler@bandangels.com)).

**AgFood Tech Special Report:** (open to all Band members and invited guests) The AgFood Tech Sig will meet on Wednesday, September 20th immediately prior to the Dinner from 4:30 PM to 6:00 PM at the Los Altos Golf and Country Club (1560 Country Club Dr, Los Altos). Jaleh Daie, Chair of AgFood Tech SiG ([jdaie@bandangels.com](mailto:jdaie@bandangels.com)) will present a bird's eye view of global innovation in Agriculture and Food, gleaned from her research readings, observations, connections, travels, and a report on her recent trip to Europe: Sabbatical in San Sebastian: Seeking Spanish Startups & Stars of Symphonic Alchemy. Drinks and bites will be served.

**Digital Disruption:** will meet on Thursday, September 7th from 11:00 AM to 2:00 PM at the Band's office (750 Battery St, 7th Fl, San Francisco). To nominate presenting companies, email Aron Bohlig ([abohlig@gmail.com](mailto:abohlig@gmail.com)).

**LifeScience/MedTech:** will meet on Wednesday, September 20th at Carr & Ferrell (120 Constitution Dr, Menlo Park) from 11:00 AM to 2:00 PM. For more information, please email Craig Pritsky ([cpritsky@bandangels.com](mailto:cpritsky@bandangels.com)), as well as Mike Bates ([mbates@gmail.com](mailto:mbates@gmail.com)) and Rich Juellis ([juellis@sbcglobal.net](mailto:juellis@sbcglobal.net)).

**Software:** will meet on Wednesday, September 13th at Carr & Ferrell (120 Constitution Dr, Menlo Park) from 1:00 PM to 5:00 PM. To nominate companies and to RSVP, please email Ron Weissman ([weissman@bandangels.com](mailto:weissman@bandangels.com)) and Heather Crawford ([heather@bandangels.com](mailto:heather@bandangels.com)).

**Wearables, Consumer & Semiconductor:** will meet on Monday, August 14th at Carr & Ferrell (120 Constitution Dr, Menlo Park) from 1:00 PM to 5:00 PM. We are happy to announce that Bruce Walicek ([bwalicek@bandangels.com](mailto:bwalicek@bandangels.com)) has joined Kurt Petersen ([kurt.mems@gmail.com](mailto:kurt.mems@gmail.com)) as Co-Chair of the WCS SiG.