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Software

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Deal Screening Committee

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Congratulations to Band member Kurt Petersen for receiving the Institute of Electrical and Electronics Engineers (IEEE) highest award “Medal of Honor” (<http://bit.ly/ieee-medal>) for contributions to, and leadership in, the development and commercialization of innovative technologies in the field of Micro-Electro-Mechanical Systems (MEMS). To quote our member Art Reidel, this is “widely considered the Nobel Prize of electrical engineering” and could not be more richly deserved. Kurt has published over 100 papers and has been granted over 35 patents in the field of MEMS. Since 1982, he has co-founded six

successful companies in MEMS technology including Cepheid (which was seeded by the Band and is now a public company on NASDAQ: CPHD). We are proud to have him as a Band member and Co-chair of the HardTech Special Interest Group (SiG). The IEEE Vision, Innovation, and Challenges Summit and Honors Ceremony Gala will be on Friday, May 17th at the Marriott Marquis San Diego Marina hotel. Band members can use code “BAND20” for 20% off early bird registration (www.ieee-vics.org) if you are interested in attending.

In other member news, Ron Weissman, Co-chair of the Software SiG, will hold a webinar on “Artificial Intelligence and the Intelligent Investor” for the Angel Capital Association (ACA) on February 20th from 9:00 AM to 10:00 AM. Registration is free for all Band members through the Band’s ACA membership (<http://bit.ly/ai-aca>). This is a preview of one of the tracks “Industry Analysts Tell All” at the 2019 ACA Summit, which this year will be on April 24-26th in Chicago. Register by February 18th to get the early bird discount (<http://bit.ly/2019aca>). Additionally, the Software SiG will be holding its annual “AI Day” on April 3rd from 12:00 PM to 4:00 PM at Carr & Ferrell in Menlo Park. If you would like to nominate companies to present, please contact Ron (weissman@bandangels.com) and Band member Armando Viteri, co-organizer of AI Day (armando5@earthlink.net).

If you have not seen it yet, here is a link to the latest PWC / CB Insights report on venture funding in 2018 (<http://bit.ly/CB-MoneyTree>). Thanks to Band member Norm Gitis for sharing it; to quote his observations: "The total venture funding reached \$200B worldwide, including \$100B in the US. Out of it, \$28B went to San Francisco based startups and \$18B went to Silicon Valley startups, while \$13B went to NY-metro, and \$11B went to New England startups. So, our area digests almost a half of the US venture funding and almost a quarter of the worldwide funding!"

Save the date for our annual Mentor Day on May 1st from 12:00 PM to 6:00 PM at Hanson Bridgett in San Francisco. Over 50 startups will meet with Band member mentors to receive feedback about the readiness of their venture for angel investment. If you would like to be a mentor or refer a company to participate, please see the Band’s web site for more details (<http://bit.ly/2019-mentorday>).

- Ian

Welcome New Members



Michael Buckley is co-founder and Board Member of Ocean's Halo, a food company specializing in commercializing products using seaweed. Mike invests in and advises early stage companies on product, fundraising, scaling, board recruitment, customer intros, exit strategies, and PR/marketing. Prior to Ocean's Halo, he was VP of Global Business Communications at Facebook where he led a 70-person team with responsibilities including oversight of all corporate, policy, internal, international, and advertising/monetization communications, as well as the Facebook Messenger and WhatsApp products. Before Facebook, he spent twelve years at Brunswick Group, a communications consultancy, where he was US Managing Partner. Managing a team of more than 150 people, he helped create a half-dozen new practice areas and open three new offices, growing revenue 80x over a decade. At Brunswick, he worked on more than \$400 billion in M&A assignments and over \$40 billion in IPO mandates for a diverse client base. Mike holds BA in Communications and Political Science from Marist College.



Michael Keogh recently joined Stanley Black & Decker as SVP of their new Digital Innovation office. He is responsible for incubating internal startups, ecosystem development, and building new revenue streams for the company. Most recently, he was at Apple where he was the Senior Director of Finance for all of Apple R&D supporting the long-term hardware and silicon roadmap development. Prior to Apple, he was at Intel in various finance roles including manufacturing, M&A, product development, supply chain, and strategy. For over a decade spanning his time with Apple and Intel, he held several roles in China, Malaysia, and the Philippines. He is an angel investor and hold several Board and advisor positions. He also dabbles in real estate and has built a portfolio of university student housing, as well as some international properties. Mike holds an MBA from Cornell University and a BA from the University of North Carolina.



Marco Zuniga received his BS in Electrical Engineering from the University of Texas at Austin and his MS/PhD from the University of California at Berkeley. Shortly prior to graduation, he co-founded Volterra Semiconductor with four friends/colleagues from Berkeley. Volterra sought to develop high-performance analog and mixed-signal power management semiconductors for the computing, storage, networking and consumer markets. He held many roles at Volterra, most notably responsible for the semiconductor technology roadmap for the company. In this capacity, successful product execution led to >20X cost-performance improvement in all product lines, enabling cumulative revenue to >\$1B by 2013. The company went through an IPO in 2004, with eventual acquisition by Maxim Integrated in 2013. He is currently at Maxim Integrated, developing technologies for the datacenter, automotive, industrial and mobile markets, and holds 60 patents. Also, an avid pianist and composer, he plays yearly in Saratoga, CA with a local symphony orchestra. He is also active in the academic community, advising and providing financial assistance to students in engineering and physics.

Monthly Meetings

Deal Dinner

Wednesday, February 20th

6:15 PM - 9:00 PM

Los Altos Golf & Country Club

1560 Country Club Dr, Los Altos

Second Look Lunch

Thursday, February 21st

12:00 PM - 3:00 PM

The Bently Reserve

400 Sansome St, San Francisco

Deal Screening Committee

Wednesday, February 27th

11:30 AM - 2:00 PM

Wilson Sonsini Goodrich & Rosati

650 Page Mill Rd, Palo Alto

To attend any Band events, please RSVP to: [650.695.0400](tel:650.695.0400) or BandHQ@bandangels.com

FEBRUARY 2019 PROGRAM

The Deal Screening Committee met on January 30th and chose from among the 42 companies under consideration the following deals: **RAYDIANT OXIMETRY**, sponsored by Band members Bill Shapiro, MD and Hector Casab, has developed a novel, transabdominal, noninvasive fetal pulse oximeter that more reliably detects fetal distress during labor and delivery; **WAVEAI** is democratizing song creation and empowering anyone to express themselves musically; and **EYECANDYLAB** is bringing augmented reality to video.

Raydiant Oximetry, Inc. (Raydiant), sponsored by Band members Bill Shapiro, MD and Hector Casab, will be presented by CEO and Founder Neil Ray, MD (650-882-7762; neilray@raydiantoximetry.com). The company is solving a pressing issue in women's health care by developing non-invasive, trans-abdominal, fetal pulse oximetry to more accurately assess fetal health during labor and delivery. Current fetal monitoring technology has a poor predictive value (52%) for detecting the distressed fetus, which can lead to unrecognized birth injuries to babies.

Raydiant uses safe levels of light to perform near-infrared spectroscopy on the maternal abdomen. By utilizing recent advances in photodetector technology and signal processing methods, Raydiant is able to isolate the fetal pulse signal from background maternal signals and biological noises. A color analysis of the fetal pulse signal is performed to calculate the percentage of hemoglobin that is bound to oxygen.

A first-in-human study was completed at UC Davis through an IRB-approved protocol to demonstrate technology feasibility in pregnant women. Validation studies have been performed using pregnant sheep models, whereby fetal oxygen levels can be manipulated and directly measured. Raydiant Oximetry presented these data to the FDA through a pre-submission meeting and the technology was granted "breakthrough medical device" status for expedited approval into the US market.

According to the California Life Science Association, only 3 companies per year are granted breakthrough status for FDA approval. There is legislation in Congress for breakthrough technologies to receive automatic CMS reimbursement coverage for 3 years after approval.

For a medical device to qualify for the breakthrough status program, the technology must meet the following criteria: (1) the technology provides more effective treatment or diagnosis of life-threatening or irreversibly debilitating conditions; (2) the patient has no approved alternatives; (3) the technology offers significant advantages over

existing approved alternatives; and (4) the technology's availability is in the best interest of patients.

Raydiant has secured 3 issued patents with 6 additional pending continuation patents. Three full applications and 8 provisional applications will be converted to full applications by the end of 2019. Based on international search reports and office actions, Raydiant has identified a whitespace in the IP landscape and anticipates 10 issued patents by the end of 2020.

Raydiant raised a friends and family round of \$500K, then oversubscribed a Seed round for \$1.1 million. Raydiant also secured a Phase 1 NIH grant for \$208K, a Phase 1 NSF grant for \$225K, and a \$1.4 million Phase 2 NIH grant is pending award for July 2019. The company is wrapping up a Series A equity round of \$4.5 million on a \$6 million valuation. To date, \$4 million has been circled with signed term sheets. Investors include: V Capital for \$2 million, Angel MD for \$750K, FemTech Fund for up to \$500K, and Purple Arch Venture for \$450K. Raydiant is offering a 3% warrant coverage to all investments made by April 30th, 2019 with the Band of Angels having the opportunity to be the final investment in this round.

WaveAI will be presented by CEO and Co-Founder Dr. Maya Ackerman (408-603-0977; maya@wave-ai.net). The company is democratizing song creation and empowering anyone to express themselves musically. Built by world experts in machine learning, WaveAI's ALYSIA app uses advanced AI methodology to turn you into a songwriter in as little as five minutes. ALYSIA makes it easy to write original lyrics and melodies, and it can even sing your song for you.

The music engagement space offers a substantial opportunity, which is largely untapped. People love to express themselves through music: The Karaoke app Smule has over 50 million MAU, while musical.ly had over 13 million daily uploads of lip-syncing videos before getting acquired by Bytedance, which now has over 500M MAU on its Tik Tok platform and is worth \$75 billion.

WaveAI is expanding the market by making song creation simple. Their app, ALYSIA, allows anyone to create original songs, without requiring any musical training or expertise. The app offers a novel AI-based approach to song creation that lets everyone create original lyrics and vocal melodies. ALYSIA's Karaoke features can then be used to record the user's voice, or ALYSIA can sing the user's song to them using a male or female in-app singing voice. ALYSIA was launched on the App Store on January 17th, 2019, with freemium model with in-app purchases (subscriptions to be integrated shortly).

The company was founded by a team of award-winning machine learning experts with extensive musical experience. CEO and Co-founder Maya Ackerman, PhD is a leading researcher in Machine Learning and Computational Creativity with experience at Caltech, UC San Diego, and Santa Clara University. She is also an opera singer and producer.

CTO and co-founder David Loker, MMath. is a researcher in machine learning with more than 12 years of industry experience, including Amazon and Netflix. David had also formed and managed a team of machine learning engineers at a previous venture. Lead ML Engineer and co-founder Christopher Cassion graduated at the top of his class at Georgia Tech and brings machine learning experience from Google and IBM Research.

The novel AI technology that underlies ALYSIA uses a revolutionary deep learning approach to lyrics writing and melody composition. By automatically creating vocal music, the AI seamlessly combines music with natural language - a problem previously considered too difficult by both industry and the research community. It is based on substantial research efforts and patents are pending.

Exit strategies including Smule, to deepen engagement on their platform, Yamaha, to transform their Vocaloid product, and Apple, which acquired its popular music production platform, GarageBand. Expected exit of \$1 billion-\$2 billion over the next 4 years.

The company is projected to reach over \$130 million ARR by 2022. It is raising \$1 million on a \$5 million valuation.

eyecandylab will be presented by CEO and Co-Founder Robin Sho Moser (robin@eyecandylab.com, 310-293-2457). eyecandylab is bringing augmented reality to video. They provide the tools and a platform to enable

content creators to monetize their content and to drive user engagement by adding an interactive AR layer to the content. eyecandylab's technology has already launched internationally, and the company is currently working with paying customers like Nickelodeon, Disney, and Asian companies such as LG and SoftBank.

All content creators face the same challenge: lack of monetization possibilities. eyecandylab is providing a new way for the content creators to generate revenue and to drive user engagement through augmented reality. The target market for the first stage of the go to market strategy is broadcasters which are struggling with declining viewership and therefore less advertisement income. They have provided them their MVP as an enterprise solution. The solution helped their customers to create excitement around their content, to maintain minute to minute viewership throughout drop-off moments, and to have a higher rating at encore episodes. From there, they pursue a land and expand strategy. At Viacom, they are in discussions about expanding from Nickelodeon to other properties within the parent company, such as MTV and Comedy Central. Stage two of the go to market strategy includes a self-servicing platform with a content creation SDK for Unity - the most popular gaming engine with a huge developer community - which enables any developer to create AR content around video. eyecandylab has built a pipeline of 70+ developers waiting for our SDK to be released so they can bring the concept of augmented reality on video to their customers.

The company has grown their revenue almost by 100% from \$220K in 2017 to \$430K in 2018. In 2019, they have already signed deals worth >\$250K and based on the sales pipeline, a revenue >\$1M is being projected for this year.

eyecandylab has filed multiple patents around their technology (in the US and European Union) and is currently preparing two more. The company has trained proprietary neural networks on screen detection with 100K+ datasets to identify any screen. In addition to this defensibility, the technology has already proven to work in front of an audience of millions and the company has left a foot print in the media industry. Recently, eyecandylab has been acknowledged by AR analytics provider and investor Digi Capital as leader in AR for entertainment.

An exit to a technology company (such as Apple/Google) would be a compelling exit. Potentially, the team is

looking to an exit within the next 3 years when wearables have become a mass market product. Besides the core technology with its associated IP, the company is also offering the platform with its users and content. Similar acquisitions in this field have shown that the valuation

could go as high as >\$250 million. The company is raising \$500K on a 2-year convertible note with a \$8 million cap and a 20% discount with 6% annual interest to roll out the self-servicing platform and the SDK.

“SECOND LOOK”

The “Second Look” Lunch will be on Thursday, February 21st from 12:00 PM to 3:00 PM at The Bently Reserve (400 Sansome Street, San Francisco). In addition to **Raydiant Oximetry**, **WaveAI**, and **EyeCandyLab** we will hear an update from Band portfolio company **IrisVision** (June 2018 Dinner) that is currently fundraising.

Portfolio company **IrisVision**, which was sponsored to the June 2018 Dinner by Band members Robert Kyle and Erich Horn, will be presented by CEO Ammad Khan (650-248-8056; ammad@irisvision.com).

IrisVision has developed the technology to help legally blind low vision people to see and function well in life. The product has been developed in collaboration with Johns Hopkins University School of Medicine through non-dilutive grant from the National Institute of Health. Patient studies show an improvement of up to 80% in the visual function of the user. IrisVision low vision solution consists of proprietary software, rehabilitation training and support and it is bundled with generic VR hardware.

Since the product launch in 2017, the company has established a reseller network, an online direct to consumer strategy, and soon it will be supplying product to Veterans Health Administration under a federal government contract. IrisVision grew 300% in 2018 compared to 2017 and closed the year at \$3 million ARR.

Low Vision population in the United States is over 3.5 million people including more than half a million veterans and the population size expected to double over the next ten years.

IrisVision has established a strategic partnership with Samsung which has led to Samsung promoting the product at global and national events as well as product provisioning and R&D collaboration. IrisVision has expanded beyond the initial vision enhancement solution, the company has developed new Ophthalmic applications for therapy and diagnosis while working with the top Ophthalmologists at Stanford Eye Institute.

IrisVision is backed by investment from Mr. Brook Byers of KPCB (Kleiner Perkins Caufield & Byers). In the current Series Seed round they have raised \$2.1 million and would like to add another \$2 million to this round. This funding will fuel growth nationally and internationally and support the launch of new products.

Portfolio and Recent Presenter Updates

Magnolia Medical (April 2012 Dinner), sponsored by Mike Bates and with Alan Biller, Mark Davies, Gary Lauder, and Daniel Joensen as Band investors, has been executing well and recently raised \$20 million in its Series C financing (<http://bit.ly/magnolia-medical>).

With just one round of funding in which the Band participated last summer, **OneDome** (April 2018 Dinner) launched their immersive entertainment destination on Market St in San Francisco in October. Since then, attendance has grown fast and the company is currently on a \$7 million annual run rate! OneDome has solid metrics on return on ad-spend that justify raising a small bridge round to invest in direct media advertising. Contact CEO Bertram Meyer (Bertram@onedome.global) if you are interested in investing. OneDome will be raising a venture round this year and this financing will be the last one solicited from angels.

Recent presenter **Lexi** (November 2018 Dinner) has \$350K collected and an additional \$60K committed of its \$750K Seed round. Since the Band dinner, Lexi has made tremendous progress: submitted 2 new patents for the application of AI & AR to Smart Lighting, completed V1.1 of their mobile apps, completed V1.0 of their cloud app, completed V1.0 of their VR Light Visualization System, completed integration of LX Studio, the world’s leading 3D light art software, completed mold tooling for all their lights, passed UL pretesting on all their lights and formally entered the UL certification process. Contact Lexi CEO Scott Cahill (scott@lexidevices.com) if you are interested in investing.

Announcements and Special Interest Group (SiG) Updates

Member Survey: please help us understand better our current membership by taking few minutes to complete this short survey of the Band member demographics, expertise, and angel investing profile (<http://bit.ly/band-member-survey>).

Accelerators: will attend the 500 Startups Demo Day on Thursday, February 28th from 2:00 PM to 5:30 PM in San Francisco. Contact: Sonja Markova (sonja@bandangels.com). The Fabric will have its Demo Day on Thursday, March 14th from 4:30 PM to 7:30 PM in Palo Alto. Contact: relationship owner David Heacock (dheacock74@gmail.com). Nex Cubed will have its Spring 2019 Showcase on Thursday, March 14th from 5:30 PM to 8:00 PM in San Francisco. Contact: relationship owner Ron Collett (ronc@nmxglobalsoftware.com).

AgFood Tech: will meet on Thursday, March 7th from 11:30 AM to 3:00 PM at Spaces (101 Jefferson Dr, Menlo Park). Contact: Jaleh Daie (jdaie@bandangels.com).

“Art of the Deal”: will have a workshop on Monday, February 25th from 11:30 AM to 2:30 PM at TechCode (1172 Castro St, Mountain View). The topic is Investor Pitches: What do Investors want to know? What are the must have ingredients? How do we maximize the probability that we can **raise and make money** on this deal? What is your role as a deal sponsor or advocate? Ron Weissman, Tim Taylor, Pat Guerra. Contact: Pat Guerra (guerra@bandangels.com).

Blockchain: will meet on Monday, March 4th from 12:00 PM to 2:30 PM at Baker Botts LLP (101 California St, San Francisco). Contact: Daniel Joensen (daniel@bandangels.com).

Digital Disruption: will meet on Thursday, March 14th from 10:30 AM to 3:00 PM at the Band’s office (750 Battery St, 7th Fl, San Francisco). Contact: Dave Krauthamer (dkrauthamer@bandangels.com).

Energy: will meet on Tuesday, March 5th with a guest speaker and on Tuesday, March 12th for office hours at Larry Kelly’s office (1060 La Avenida, Mountain View). Contact: Larry Kelly (lkelly@kellyven.com) for details.

HardTech: will meet on Monday, March 11th at TechCode (1172 Castro St, Mountain View) from 11:00 AM to 3:00 PM. Contact: Kurt Petersen (kurt.mems@gmail.com) and Bruce Walicek (bwalicek@bandangels.com).

Life Science/MedTech: will meet Wednesday, February 20th at Carr & Ferrell (120 Constitution Dr, Menlo Park) from 11:00 AM to 2:00 PM. Contact: Craig Pritsky (cpritsky@bandangels.com), as well as the SiG chairs Mike Bates (mbates@gmail.com) and Rich Juelis (juelis@sbcglobal.net).

Software: will meet on Wednesday, March 13th at Carr & Ferrell (120 Constitution Dr, Menlo Park) from 12:00 PM to 4:00 PM. Contact: Ron Weissman (weissman@bandangels.com) and Ron Burns (rburns@bandangels.com).

VC: will meet on Tuesday, February 19th from 11:30 AM to 2:00 PM at TechCode (1172 Castro St, Mountain View). All members are welcome to attend the VC speaker presentation from 12:00 PM to 1:00 PM with Arun Penmetsa, Partner at Storm Ventures. Contact: Jack Guedj (jackguedj@bandangels.com) and Bill Loesch (bill@loeschmail.com).

Mentor Day

This year’s Mentor Day will be on Wednesday, May 1st from 12:00 PM to 6:00 PM at Hanson Bridgett (425 Market Street, San Francisco). Mentor Day will provide 50 startups, in any of the Band’s investment sectors, with the opportunity to meet 2-3 Band members for 45-minute conversations about their business and readiness for angel funding. Big thanks to Band member Ron Weissman for leading this “give-back” event to the entrepreneur community.



As a member, here is how you can help make this another successful Mentor Day: (1) **Volunteer to be a mentor**, and (2) **Get the word out to startups** you are working with, your favorite accelerator, and/or colleagues who work regularly with startups (accountants, attorneys, bankers, etc.). See the Band’s web site for details (<http://bit.ly/2019-mentorday>).