

# JONATHAN P. SIEGRIST

## OBJECTIVE

Drive transformational healthcare change as a strategic, innovative, and technical leader in the area of medical devices, *in vitro* diagnostics, and biosensors.

I am driven by top teams working on revolutionary products that will drastically improve healthcare. My goal is to strategically drive & technically manage innovative initiatives that change the game for patients and providers alike. I work for patients.

## TECHNICAL PROFILE

- Strong interdisciplinary engineering and biomedical background
- Extensive experience with systems, devices, and technology integration
- Design, prototyping, and large scale manufacture of medical devices
- Hardware and software development for instrumentation support
- Assay development including surface chemistries and signal transduction

## PERSONAL PROFILE

- Proven leadership in cross-functional R&D and Ops environments
- Have led global, multi-disciplinary teams of over 150+ associates
- Proven program/project management with 10+ IVD product launches
- Natural leader with excellent communication and team building skills
- Persistent and creative problem solver
- Excels in challenging environments

## EDUCATION

**Ph.D., Biomedical Engineering**  
University of California, Irvine

**M.S., Biomedical Engineering**  
University of California, Irvine

**B.S., Electrical Engineering w/Biomedical Engineering Option**  
University of California, Los Angeles

## AT A GLANCE

Ph.D. in Biomedical Engineering  
B.S. in Electrical Engineering

Entire career in medical device, *in vitro* diagnostics, and biosensors with strong systems integration and product focus

Technical and strategy leader with track record of driving cross-functional teams, large and small, from early stage ideation through development & validation to regulatory approval and launch

## Contact

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## Location

San Francisco Bay Area, CA, US

US Citizen

## EXPERIENCE HIGHLIGHTS

**CHIEF TECHNOLOGY OFFICER, CEPHEID:** CTO leading and growing a group of 150+ global associates comprised of Cepheid's dedicated early-stage Technology & Innovation Team as well as a dedicated Product Development unit focused on development and launch of next-generation multiplex molecular diagnostics systems, software, consumables, and assays.  
*Key Outputs:* supported key aspects of Cepheid's growth and products during COVID, led the successful M&A close and integration of a pre-revenue company with technology that enables Cepheid's next generation systems, and drove and supported key open/external innovation initiatives for alternate molecular diagnostic platforms and technologies, at both the Cepheid and Danaher levels

**VICE PRESIDENT TECHNOLOGY & INNOVATION, CEPHEID:** Grew and led Cepheid's global innovation team of scientists, engineers, and tech scouts to drive organic and open-innovation projects focused on assay, chemistry, systems, and consumables projects to lay the foundation of Cepheid's next-generation capabilities for the GeneXpert system and assays  
*Key Outputs:* established a "light and fast" innovation idea/project framework to prioritize and drive projects, initiated multiple external partnership projects (incl. driving Danaher-backed start-up investments) to advance detection capabilities of the GeneXpert, drove innovation of host-response based assays, re-ignited Cepheid's instrument/system development efforts with multiple next-gen systems, and contributed to multi-level diligence, M&A, and strategic planning efforts for Cepheid and Danaher

**SR. DIRECTOR ENGINEERING, CEPHEID:** Special assignment reporting to Cepheid's CEO/President leading large and cross-functional development teams focused on new iterations of GeneXpert systems  
*Key Outputs:* moved the GeneXpert Omni platform, including assay hardware, assay, software, and manufacturing aspects, through the Technical Feasibility phase including the first real-world field studies in South Africa, led the engineering grant writing initiatives that resulted in a multi-tens of millions of dollars contract from the US government to help accelerate GeneXpert system and consumable technologies, and initiated and launched (CE-IVD) the new GeneXpert Edge system for TB & HIV diagnostics

**DIRECTOR ENGINEERING PROGRAMS, CEPHEID:** Director of the Engineering Consumables R&D Group & technical program director of the Cepheid-USPS-Northrop Grumman Biohazard Detection System (BDS) partnership  
*Key Outputs:* established the Engineering Consumables R&D group, led the R&D group to design a new injection-molded GeneXpert cartridge component for high-multiplexing & demonstrated PCR proof-of-concept, and addressed BDS program business continuity concerns to maintain the program's multi-million dollar yearly revenue stream

**CO-FOUNDER & LEAD ENGINEER, IGLYKO, INC. FOR GLUCOSE SENSING:** Worked in the business, financial, and technical arms of the company for the development of a fluorescence-based continuous glucose-sensing intravenous catheter  
*Key Outputs:* developed hydrogel chemistries, fabricated fiber-optic systems, and established proof-of-concept in whole blood

## SKILLS OVERVIEW

**STRATEGY:** strategic planning, landscape assessments, ROIC models, voice-of-customer, and numerous framework tools

**INNOVATION:** innovation process incl. Technology Readiness Levels, portfolio management, and early-stage investments

**LEADERSHIP:** global and multi-disciplinary team building and leadership, situational leadership, \$50M+ budget responsibility

**MANUFACTURING:** multi-cavity injection molding incl. overmolding, lyophilization, high-throughput assembly and automation, IOPQ, process validation, and QC/failure investigation

**FABRICATION:** CNC prototyping, injection-molding, bonding, surface treatments, MEMS/photolithography/cleanrooms

**BIO/CHEMICAL:** DNA/RNA assays (amplification reactions), immunoassays, surface immobilization, gel/matrix chemistries

**SYSTEMS:** electrical, optical (fiber-optics, LEDs, PMTs), thermal (thermoelectrics, thermal modeling), magnetics

**SOFTWARE:** CAD (SolidWorks, Pro/E, AutoCAD), CAM (Pro/E), LabVIEW, Microsoft Project, Minitab, Windows, Mac

**PUBLICATIONS:** 30+ conferences and papers including numerous 1st authorships

**IVD STANDARDS:** ISO 13485 (CE-IVD, IVDD and IVDR), ISO 14971, QSR 21 CFR 820, Risk Mgmt/FMEA, Tech File, 510(k)

## SELECT WORK EXPERIENCE

### 2021-CURRENT : CHIEF TECHNOLOGY OFFICER

**Cepheid, Inc.**

[www.cepheid.com](http://www.cepheid.com)

- CTO leading a group of 150+ global, cross-functional associates comprised of Cepheid's dedicated early-stage Technology & Innovation Team (includes internal/organic innovation as well as outside/open innovation & tech scouting) and a dedicated Product Development unit (Biochip) focused on next-generation multiplex molecular diagnostics systems, software, consumables, and assays.
- Responsibilities cover a \$50M+ global budget with deliverables including fully functional prototypes of new technologies, systems, and assays into Cepheid's product development business units, in addition to responsibility of the new Biochip product development unit to develop and launch (IVD) next-generation multiplex GeneXpert molecular diagnostics systems, software, consumables, and assays
- Led the successful M&A close and integration of a pre-revenue company with technology that enables Cepheid's next generation detection technologies, followed by team build-out, project planning, and product development initiation
- Drove and supported key open/external innovation initiatives for alternate molecular diagnostic platforms and technologies, at both Cepheid and Danaher levels
- Continue to drive organic innovation initiatives around next-gen GeneXpert cartridge, host response assay applications, time-to-result, and other key projects to drive Cepheid's future growth

### 2018-2021 : VICE PRESIDENT, TECHNOLOGY & INNOVATION

**Cepheid, Inc.**

[www.cepheid.com](http://www.cepheid.com)

- Technical and strategic leader of all early stage/pre-concept/innovation projects at Cepheid. Responsible for directly driving projects across a global team of 70+ scientists and engineers as well as driving innovation processes globally across the company to ensure tight alignment between innovation and strategy and a balanced portfolio of innovation projects.
- Developed technical focus vectors for innovation initiatives and built and implemented a "light and fast" portfolio management + idea/project framework based on the Technology Readiness Level (TRL) format
- Initiated multiple next-gen system innovation projects in support of extending and expanding the function of the GeneXpert system, including peripheral devices to enable new user workflows, a pipeline of next-gen GeneXpert systems, and an all new platform to improve the detection capabilities of the GeneXpert
- Initiated and drove a major collaboration with an early-stage company focused on next-gen detection capabilities leading to a follow-on funded SOW and Danaher minority investment with option to further extend the business agreement and product development work
- Initiated and led an innovation program to improve the time-to-result of critical point-of-care/CLIA-Waived GeneXpert assays
- Drove multiple key customer implementation science projects including in-home Flu testing, mobile testing, and retail/pharmacy testing
- Drove and/or contributed to multiple assay innovation projects focused on host-response based approaches to disease detection
- Initiated and led a year long "voice-of-customer" project focused on next-gen, 10 year needs which included creating and adopting a customer visit process, visiting 45+ customer sites across multiple segments (hospital labs, urgent care settings, community clinics, pharmacies, etc.) across multiple geographies (China, India, Europe, US) which resulted in numerous new innovation projects, product development projects, and key changes/improvements to the company strategic direction
- Key member of a senior 3-member Cepheid team tasked with leading the strategic planning process for Cepheid along with multiple diligence, strategic planning, technology roadmapping, and market work-up activities

## **2016-2018 : SR. DIRECTOR, ENGINEERING**

### **Cepheid, Inc.**

[www.cepheid.com](http://www.cepheid.com)

- Special assignment individual-contributor role reporting directly to the Cepheid President/CEO as overall program lead for the new GeneXpert Omni system under development
- Duties included overseeing the entire Omni cross-functional program from technical hardware and software (incl. cloud connectivity), marketing, NPI, instrument and consumable manufacturing, verification, validation, and IVD launch
- Led a global core team of 40+ team members across the company to move the GeneXpert Omni through Technical Feasibility including the first real-world system test field studies in South Africa in collaboration with FIND
- Included training, implementation, and refinement of multiple Danaher Business System (DBS) product development tools around program management/project scheduling, risk analysis, and technical problem solving to help accelerate progress across the board
- Additional program responsibilities included leading the engineering grant writing initiatives that resulted in a multi-tens of millions of dollars contract from the US government to help accelerate validation and launch of the Omni platform
- Additional key project during this time was acting as the sole program and technical lead on the GeneXpert Edge system to go from concept to CE-IVD launch in less than 15 months for Cepheid's first system to feature battery power to support TB and HIV testing in low resource environments

## **2013-2016 : DIRECTOR, ENGINEERING PROGRAMS**

### **Cepheid, Inc.**

[www.cepheid.com](http://www.cepheid.com)

- Cepheid's technical program lead for the Biohazard Detection System (BDS), a national security partnership between Cepheid, United States Postal Service (USPS), and Northrop-Grumman (NG) to screen mail for Anthrax w/molecular testing
- Led all of Cepheid's technical, business, and customer aspects of the BDS program, including supply of consumable test cartridges to USPS and service/support of system hardware for NG (duties included forecasting, supply chain management, manufacturing management, shipping/transportation logistics, technical change control, contract negotiations, resolution of field issues, database management & monitoring, and regular partner meetings with both USPS & NG)
- Successfully addressed several business continuity concerns with the BDS program while maintaining a \$20 mil+ yearly revenue stream in a time of rapid change with USPS and mail demand
- Established and led a new Engineering Consumables R&D group, which grew to 4 Engineers/Scientists in support of a strategic project to enable high-multiplexing PCR in Cepheid's GeneXpert systems
- Engineering R&D work included research, development, and testing of specific fluidic parts, establishing feasibility for injection molding of these parts as a new consumable cartridge component, and establishing PCR proof-of-concept
- Additional Engineering R&D responsibilities included equipment/infrastructure updates to the R&D labs as well as to Cepheid's molding/tooling facility, overall project schedule, budget, and deliverables tracking (including regular updates to the Senior Executive team), and cross-functional coordination to ensure manufacturing, software, hardware, and biological requirements are incorporated
- Coached the individual Consumables R&D team members and developed the overall group to create a high-functioning, productive, and innovative product development team

## **2011-2013 : PRODUCT DEVELOPMENT PROGRAM/PROJECT MANAGER**

### **Cepheid, Inc.**

[www.cepheid.com](http://www.cepheid.com)

- Worked as a project manager for Cepheid's Research and Development groups, including Engineering, Systems Integration, Software, and BioAssay projects
- Acted as the sole Systems/Software program/project manager, including projects for developing GeneXpert systems, GeneXpert software, and new consumables/cartridges
- Duties included core team formation, schedule development and tracking, conflict management, resource management, risk management, and adherence to ISO 13485 from concept to product launch & post-market surveillance
- Managed large, cross-functional, international core teams while significantly contributing to design, verification/validation, manufacturing, regulatory, and marketing initiatives, among others
- Additional duties included strategic program planning at the Executive level and product lifecycle improvements
- Successfully launched over 10+ IVD products in 2 years, including systems projects (Infinity-80 and Infinity-48s instruments, Xpert Calibration), software products (Xpertise and Dx product software), and assays (Xpert CT/NG, Xpert Flu)

## **2010-2011 : MICROFLUIDIC IMMUNOASSAY RESEARCH AND DEVELOPMENT LEAD**

### **Biomedical Diagnostics Institute - Dr. Jens Ducreé**

- Worked as a post-doctoral researcher in the microfluidics group at the Biomedical Diagnostics Institute in Dublin, Ireland
- Research work was focused on development of an automated, microfluidic immunoassay system in collaboration with Millipore, including integration of microfluidic sample prep, surface chemistry, fluorescence detection, and hardware systems
- Other projects included a magnetics-based bioseparation platform, unique valving methods, and new surface chemistries
- Also set up entirely new labs and installed new lab infrastructure, including process development and lab management
- Additional tasks involved student mentoring and supervision, including the management of several M.S. and B.S. students

**2006-2011 : CONTINUOUS GLUCOSE MONITORING RESEARCH AND DEVELOPMENT, LEAD ENGINEER/CO-FOUNDER  
iGlyko, Inc.**

- Worked on the development of an intravenous, fiber-optic glucose sensor for in-hospital tight glycemic control (TGC) using genetically engineered proteins, including co-founding a start-up company (iGlyko, Inc.)
- General duties included setting up laboratory space and assisting in creation of research and business teams through training and recruitment
- Scientific duties included management of a small team for fiber-optic system design, protein handling chemistries, hydrogel optimization, development of protocols, hardware automation, and detailed development planning
- Established *in vitro* sensitivity & specificity proof-of-concept in whole blood
- Business duties included business plan writing/presentations, searching for funding from investors (angels, investment bankers, and VCs), grant writing (SBIRs), and webmaster

**2006-2009 : RESEARCH ON MICROFLUIDIC PLATFORMS FOR NUCLEIC ACID-BASED DISEASE DIAGNOSTICS**

**UC Irvine - Dr. Marc Madou**

**www.biomems.net**

- Research for doctorate degree on development of microfluidic sample lysis, PCR, and DNA microarray hybridization platforms to integrate into a sample-to-answer system as part of a multi-million dollar, international Genome Québec initiative
- Developed a microfluidic system for bacterial detection that combined cell lysis with real-time PCR as part of a DARPA-sponsored initiative within the unique MF3 center
- Utilized microfabrication and manufacturing skills to create disposable, low-cost, polymer microfluidic devices both in and out of cleanroom facilities
- Fabricated and automated platform instrumentation, including fluorescence detection systems, feedback control systems for thermocycling, and magnetic actuation systems for sample preparation
- Research work also included handling and performing relevant biological assays, such as the optimization of qPCR reactions and the handling of blood/cells
- Additional duties included lab management, webmaster, and numerous grant writing efforts (NIH, NSF, and others)

**2007, FALL : RNA AMPLIFICATION ASSAY DEVELOPMENT SCIENTIST**

**Hologic (formerly Gen-Probe) - Dr. Norm Nelson**

**www.hologic.com**

- Worked in Gen-Probe's biochemistry R&D group on RNA amplification and detection assays
- Developed and optimized various forms of transcription-mediated amplification (TMA) assay for prostate cancer diagnostics
- Reactions were run in a 96-well plate format using real-time molecular probes for multiplexed detection
- Work included designing and carrying out experiments as well as data analysis and quantitation
- Additional tasks involved instrumentation optimization such as protocol development for magnetic bead-based target-capture and automated well-plate dispensing

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**OTHER EXPERIENCES**

**2019 : DANAHER MAXIMIZING LEADERSHIP POTENTIAL (MLP) LEADERSHIP COURSE**

- Nominated to attend a multi-month long Danaher focused leadership course including two week long in-person sessions
- Topics covered included a 360 review, leadership brand, mindfulness, business simulations, and communication

**2018 : STANFORD D.SCHOOL DESIGN THINKING BOOTCAMP**

- Week-long, hands-on course focused on learning, practicing, and improving design thinking from ideation to prototype
- Included multiple hands-on workshops conducted at work as well as part of the course and led to, after the course, sponsoring a Cepheid-focused design thinking project in collaboration with Stanford d.school students

**2016 : UC BERKELEY HAAS SCHOOL OF BUSINESS EXECUTIVE LEADERSHIP PROGRAM**

- Immersive 5-day course led by Dr. Homa Bahrami covering personal and team leadership topics such as organizational tools & styles, coaching, communication styles & effectiveness (incl. non-verbal), active listening, and fostering collaboration
- Course included 360° evaluations, live recording and feedback/analysis of mock negotiations, storytelling, and team analysis

**2014 : SITUATIONAL LEADERSHIP TRAINING**

- Hands-on, 1-day seminar focused on employing a dynamic management style based on the employee and situation at hand

**2010 : ACADEMY LEADERSHIP TRAINING - LEADERSHIP BOOTCAMP**

- Intensive, hands-on, 3-day leadership seminar led by previous members of the US Military
- Topics focused on included communication, motivation, conflict management, coaching, and goal setting

## SELECT JOURNAL PUBLICATIONS

### 1. 2013 : ANALYTICA CHIMICA ACTA JOURNAL PAPER

- C. Nwankire, G. Donohoe, X. Zhang, **J. Siegrist**, M. Somers, D. Kurzbuch, R. Monaghan, M. Kitsara, R. Burger, S. Hearty, J. Murrell, C. Martin, M. Rook, L. Barrett, S. Daniels, C. McDonagh, R. O'Kennedy, and J. Ducee, 2013, At-Line Bioprocess Monitoring by Immunoassay with Rotationally Controlled Serial Siphoning and Integrated Supercritical Angle Fluorescence Optics, *Analytica Chimica Acta*, **781**, 54-62.

### 2. 2013 : ANALYTICA CHIMICA ACTA JOURNAL PAPER

- **J. Siegrist**, V. Gubala, R. Monaghan, B. O'Reilly, R. Gandhiraman, S. Daniels, D. Williams, and J. Ducee, 2013, Simple Approach to Study Biomolecule Adsorption in Polymeric Microfluidic Channels, *Analytica Chimica Acta*, **760**, 75-82.

### 3. 2012 : MICROFLUIDICS AND NANOFUIDICS JOURNAL PAPER

- D. Kirby, **J. Siegrist**, G. Kijanka, L. Zavattoni, O. Sheils, J. O'Leary, R. Burger, and J. Ducee, 2012, Centrifugo-Magnetophoretic Particle Separation, *Microfluidics and Nanofluidics*, **13**, 899-908.

### 4. 2010 : SENSORS AND ACTUATORS B: CHEMICAL JOURNAL PAPER

- **J. Siegrist**, T. Kazarian, C. Ensor, S. Joel, M. Madou, P. Wang, and S. Daunert, 2010, Continuous Glucose Sensor Using Novel Genetically-Engineered Binding Polypeptides Towards *In vivo* Applications, *Sensors and Actuators B: Chemical*, **149**, 51-58.

### 5. 2010 : LAB ON A CHIP REVIEW PAPER

- R. Gorkin, J. Park, **J. Siegrist**, M. Amasia, B. Lee, J. Park, J. Kim, H. Kim, M. Madou, and Y. Cho, 2010, Centrifugal Microfluidics for Biomedical Applications, *Lab on a Chip*, **10**, 1758-1773.

### 6. 2010 : LAB ON A CHIP JOURNAL PAPER

- **J. Siegrist**, R. Gorkin, M. Bastien, G. Stewart, R. Peytavi, H. Kido, M. Bergeron, and M. Madou, 2010, Validation of a Centrifugal Microfluidic Sample Lysis and Homogenization Platform for Nucleic Acid Extraction with Clinical Samples, *Lab on a Chip*, **10**, 363-371.

### 7. 2009 : MICROFLUIDICS AND NANOFUIDICS JOURNAL PAPER

- **J. Siegrist**, R. Gorkin, L. Clime, E. Roy, R. Peytavi, H. Kido, M. Bergeron, T. Veres, and M. Madou, 2010, Serial Siphon Valving for Centrifugal Microfluidic Platforms, *Microfluidics and Nanofluidics*, **9**, 55-63.

### 8. 2007 : COLLOIDS AND SURFACES B JOURNAL PAPER

- G. Jia, **J. Siegrist**, C. Deng, J. Zoval, G. Stewart, R. Peytavi, A. Huletsky, M. Bergeron, and M. Madou, 2007, A Low-Cost, Disposable Card for Rapid Polymerase Chain Reaction, *Colloids and Surfaces B: Biointerfaces Special Edition*, **58**, 52-60.

## SELECT CONFERENCES

### 1. 2011 : MICROTAS CONFERENCE ABSTRACT & POSTER (SEATTLE, WA)

- **J. Siegrist**, G. Donohoe, M. Sommers, D. Kurzbuch, R. Burger, S. Hearty, J. Murrell, C. Martin, L. Barrett, C. McDonagh, R. O'Kennedy, and J. Ducee, 2011, A Centrifugo-Microfluidic Cartridge with Integrated Detection Optics Towards Automated At-Line Bioprocess Monitoring of Immunoglobulin G, *Proceedings of MicroTAS 2011*.

### 2. 2011 : IEEE MEMS CONFERENCE ABSTRACT & POSTER (CANCUN, MEXICO)

- **J. Siegrist**, L. Zavattoni, and J. Ducee, 2011, Centrifugo-Magnetophoretic Separation and Routing of Particles, *Proceedings of IEEE MEMS 2011*.

### 3. 2010 : MICROTAS CONFERENCE ABSTRACT & POSTER (GRONINGEN, THE NETHERLANDS)

- M. Amasia, **J. Siegrist**, and M. Madou, 2010, Large-Volume Centrifugal Microfluidic Device for Whole Blood Sample Preparation, *Proceedings of MicroTAS 2010*.

### 4. 2010 : AMERICAN DIABETES ASSOCIATION CONFERENCE ABSTRACT & POSTER (ORLANDO, FL)

- D. Tobler, **J. Siegrist**, T. Kazarian, M. Madou, P. Wang, and S. Daunert, 2010, A Novel Genetically Engineered Biosensor for Real-Time *In vivo* Glucose Sensing, *Proceedings of American Diabetes Association's 70th Scientific Sessions 2010*.



**5. 2009 : OAK RIDGE CONFERENCE: FRONTIERS IN CLINICAL DIAGNOSTICS ABSTRACT & POSTER (BALTIMORE, MD)**

- N. Nelson, D. Lyakhov, S. Phelps, J. Chelliserrykattil, J. Carlson, M. Kaminsky, P. Gordon, S. Hashima, T. Ngo, **J. Siegrist**, and S. Brentano, 2009, Quantitative Detection of PCA3, PSA, and Internal Control in a Quantitative, Multiplex, Universal Real-time Transcription-Meditated Amplification Assay Format, *Proceedings of Oak Ridge Conference: Frontiers in Clinical Diagnostics 2009*.

**6. 2008 : MICROTAS CONFERENCE ABSTRACT & POSTER (SAN DIEGO, CA)**

- E. Roy, **J. Siegrist**, R. Peytavi, G. Diaz-Quijada, H. Roberge, F. Normandin, G. Jia, J. Zoval, M. Madou, M. Bergeron, M. Dumoulin, and T. Veres, 2008, Thermoplastic Elastomer (TPE) Block Copolymers, A New Material Platform for Microfluidics: Proof-of-concept for Complex Siphon Valving on a CD, *Proceedings of MicroTAS 2008*.

**7. 2008 : FRONTIERS IN BIOMEDICAL DEVICES CONFERENCE ABSTRACT & PRESENTATION (IRVINE, CA)**

- **J. Siegrist**, M. Amasia, H. Kido, J. Zoval, and M. Madou, 2008, Microfluidic CD-Based Systems Towards Rapid Anthrax Detection in Whole Blood, *Proceedings of Frontiers in Biomedical Devices 2008*.

**8. 2007 : SOCIETY FOR EXPERIMENTAL MECHANICS CONFERENCE PAPER & PRESENTATION (SPRINGFIELD, MA)**

- **J. Siegrist**, G. Jia, H. Kido, J. Zoval, G. Stewart, D. Gagné, R. Peytavi, A. Huletsky, M. Bergeron, and M. Madou, 2007, Centrifugal (CD) Microfluidic Platforms for Nucleic Acid Analysis, *Proceedings of SEM 2007*.

**SELECT PATENTS AND DISCLOSURES**

**1. 2020 : PATENT PENDING**

- D. Dority, **J. Siegrist**, R. Chang, 2020, System, Device and Methods of Sample Processing Using Semiconductor Detection Chips - US 2020/0116750 A1.

**2. 2012 : US PATENT**

- **J. Siegrist**, R. Gorkin, R. Peytavi, M. Madou, H. Kido, M. Amasia, E. Roy, and T. Veres, 2009, Centrifugal Microfluidic System for Nucleic Acid Sample Preparation, Amplification, and Detection - US 8,303,911.

**3. 2009 : SOFTWARE COPYRIGHT**

- **J. Siegrist**, 2009, Multi-Level Gain-Scheduled PID Control Algorithm for Rapid & Stable Thermocycling using Thermoelectric Devices.

**4. 2009 : INTERNATIONAL PATENT**

- **J. Siegrist**, M. Madou, P. Wang, S. Daunert, E. Moschou, S. Joel, K. Turner, L. Bachas, B. Haley, and L. Rowe, 2009, Device for Detection of Molecules of Interest - WO 2009/021039.

**OTHER SELECT PUBLICATIONS, PRESS, AND PRESENTATIONS**

**1. 2010 : IVD TECHNOLOGY WEBCAST**

- **J. Siegrist**, Microfluidic Applications for IVDs, *IVD Technology Webcast*, Nov. 16, 2010.

**2. 2010 : IVD TECHNOLOGY DX DIRECTIONS ARTICLE**

- **J. Siegrist**, R. Peytavi, M. Bergeron, and M. Madou, 2010, Microfluidics for IVD Analysis: Triumphs and Hurdles of Centrifugal Platforms - Part 3: A Vision for Tomorrow, *IVD Technology DX Directions*, (March).

**3. 2010 : IVD TECHNOLOGY MAGAZINE ARTICLE**

- **J. Siegrist**, R. Peytavi, M. Bergeron, and M. Madou, 2010, Microfluidics for IVD Analysis: Triumphs and Hurdles of Centrifugal Platforms - Part 2: Centrifugal Microfluidics, *IVD Technology*, **16** (January/February).

**4. 2009 : DOCTORAL DISSERTATION**

- **J. Siegrist**, 2009, Centrifugal Microfluidic Platforms Towards Sample-to-Answer Nucleic Acid Diagnostics.

**5. 2009 : IVD TECHNOLOGY MAGAZINE ARTICLE (COVER ARTICLE)**

- **J. Siegrist**, R. Peytavi, M. Bergeron, and M. Madou, 2009, Microfluidics for IVD Analysis: Triumphs and Hurdles of Centrifugal Platforms - Part 1: Molecular Fundamentals, *IVD Technology*, **15** (November/December).