

KEIKI-PUA S. DANCIL, Ph.D.

- experience**
- 2010 - present **HAWAII SCIENCE & TECHNOLOGY COUNCIL (HSTC)** **HONOLULU, HI**
President
HSTC is a 501(c)(6), a not-for-profit trade association comprising of 100 member companies that participates in lobbying activities involved in the advocacy for the advancement of science and technology through policy development in the State of Hawaii. Member companies represent the following market segments: agricultural biotechnology, astronomy, biotechnology/life sciences, defense/aerospace, engineering/professional services, environmental, film/digital media, information/communication-technology, ocean sciences, and renewable energy.
- 2010 - present **HAWAII SCIENCE & TECHNOLOGY INSTITUTE (HSTI)** **HONOLULU, HI**
CEO
HSTI is a 501(c)(3), not-for-profit charitable organization. HSTI's activities enhance the Science and Technology Industry in Hawaii by developing strategic partnerships with other stakeholders, including but not limited to State Agencies, Private and Public Schools, and the Business Community, on issues including but not limited to workforce development and economic revitalization.
- 2009 **SYNEDGEN, INC.** **CLAREMONT, CA/HONOLULU, HI**
Executive Vice President
Synedgen, Inc is the merged company of Hawaii Chitopure and its primary R&D subcontractor, BioSTAR West LLC. The company is in the market of commercializing medical applications utilizing the active ingredient chitosan-arginine. Completed activities:
- Assisted in the development of the executive summary and offering document that was utilized as a tool for a Series B round of financing from angel investors.
 - Finalized budget and forecasting for 5 year plan.
 - Prepared Pre-IND (Investigational New Drug) document for the Food & Drug Administration (FDA).
- 2006 - 2009 **HAWAII CHITOPURE, INC.** **HONOLULU, HI**
Executive Vice President
Hawaii Chitopure is a biomaterials company specializing in the US manufacturing of ultra-pure chitosan for a variety of medical applications. Milestones completed:
- Due diligence process for the merger and formation of Synedgen, Inc.
 - Design and construction of 3500 ft² GMP manufacturing facility compliant to ISO 13485 and 21CFR Part 820 (Quality Program for Medical Devices).
 - Successfully delivered product for key customer, *exceeding* all specifications.
 - Facilitated and navigated successful discussions with the FDA regarding approval of first product.
 - Completed two Request for Designation (RFD) submissions and one pre-Investigational Device Exemption (pre-IDE) submission to the FDA.
 - Acquired key operational permits from the City and County Wastewater Department for Honolulu facility.
- 2005 **BIOSTAR GROUP** **GERMANTOWN, MD**
Summer Intern
Responsible for the start up of a new high quality medical and commercial grade biomaterials production and R&D venture, *Hawaii Chitopure, Inc.*
- Assisted founders with the set up of subcontracts and Federal US Army Government contract for new venture.
 - Designed new R&D and pilot production facility in Hawaii and procurement of analytical equipment.
- 2002 - 2004 **TREX HAWAII, LLC** **MAUI, HI AND SAN DIEGO, CA**
Director of Research and Development
Managed Research and Development Group for internal "spin off" endeavor (*Silicon Kinetics, Inc.*) targeting emerging Proteomics field.
- Directly supervised and led a multidisciplinary team of four scientists and eight engineers to build a prototype unit for beta site evaluation.
 - Technical liaison between *Silicon Kinetics, Inc.*, microfluidic company and software development company. during the design phase of proprietary disposable cartridge subcomponent and software package.
 - Interfaced with Underwriters Laboratories for safety standards and approval.
 - Assisted CEO with negotiations with OEM subcomponent purchases and technical presentations to VC firms.
- 2002 - 2004 **Program Manager**
Co-authored and rewarded Government Contract # DASG60-03-C0014 (\$3.8M): "*Investigating semiconductor optical microarray measurements.*"

- Built relationship with government agency by consistently meeting technical milestones within scope of project and budget.
- Supervised scientific and engineering team between Hawaii and California.

2000 - 2002 **TREX ENTERPRISES CORPORATION** **KAUAI, HI AND SAN DIEGO, CA**
Principal Investigator and Program Manager
 Recipient of DARPA/CEROS (Contract # 4215) contract (\$499k) for "Porous Silicon Biosensor" and DARPA/CEROS (Contract # 46764) contract (\$537k) for "Development of an Organophosphate Porous Silicon Biosensor."

- Developed new endeavor by competitively acquiring over \$1M to complete proof of principle experiments.
- Expanded current facility to accommodate chemical/biological experiments with new laboratory.

1999 - 2000 **Senior Staff Scientist**
 Designed and analyzed experiments for advanced mirror coatings targeting light weight flight optics.

education

■ ■ **HARVARD BUSINESS SCHOOL** **BOSTON, MA**
 Master in Business Administration.
 Member of Entrepreneurship, Healthcare, High Tech New Media, and Social Enterprise Club.

■ ■ **UNIVERSITY OF CALIFORNIA, SAN DIEGO** **LA JOLLA, CA**
 Doctor of Philosophy in Chemistry, *Dept. of Chemistry and Biochemistry.*
 National Institute of Health Fellow

■ ■ **SANTA CLARA UNIVERSITY** **SANTA CLARA, CA**
 Bachelor of Science degree in Chemistry.
 John F. Deck Award, Most Outstanding Chemistry Graduate.

■ ■ **KAMEHAMEHA SCHOOLS** **KAPALAMA HEIGHTS, HI**
 Honors High School Diploma

speaking

2010 **HAWAII COMMUNITY**
 Ongoing participation with key decision leaders across academic, business and non-profit sectors

- *Facilitator/Convener*, "President Greenwood Advisory Council on Innovation", *UH System*
- *Roundtable Panelist*, "How to Revitalize Hawaii's Economy", *Hawaii Business Magazine*
- *Finalist*, "20 for the next 20", *Hawaii Business Magazine*
- *Keynote Speaker*, "Hawai'i Technology Development Venture Annual Conference", 200 participants
- *Moderator*, numerous panels and events for *UH System, Hawaii Strategic Development Corporation, Hawaii Renewable Energy Development Venture, and Hawaii Crop Improvement Association.*

2007 **BIOPROSPECTING COMMISSION**
 State-wide community meetings were held to gather information regarding biosprospecting issues and concerns.

- *Hawai'i Island (Kona and Hilo)*
- *Maui County (Makawao, Kaunakakai, Moloka'i, Lana'i City, Lana'i)*
- *Kaua'i (Lihu'e)*
- *O'ahu (Kane'ohe, Honolulu, Wai'anae)*

boards & appointments

2008 - present Board Member, *PBS Hawaii*

2008 - 2009 Board Member, "HISciTech Board of Directors", *Hawaii Science & Technology Council*

2007 - 2008 Commissioner, "Temporary Advisory Commission on Biosprospecting", *State of Hawaii*

2004 Board Member, "Keaholoa STEM Program", *National Science Foundation & UH-Hilo*

1999 - 2000 Empowering Communities Member, "KSBE Strategic Planning Committee", *Kamehameha Schools Bishop Estate*

publications & patents

"Optical Sensor and Methods for Measuring Molecular Binding Interactions"
 Martin, P.M., Dancil, K-P.S., Morsell, A.L., Tigli, H.
 US Patent No. 7,517,656. Issued April 14, 2009. Filed July 8, 2003.

"Porous Semiconductor-based Optical Interferometric Biosensor"

Ghadiri, R.M., Sailor, M.J., Montesharei, K., Lin, V.S-Y., Dancil, K-P.S.
US Patent No. 6,897,965. Issued May 24, 2005. Filed March 16, 2004.

"Simultaneous Separation and Detection of Proteins in a nanomachined Si Matrix"
Sailor, M.J., Dancil, K-P.S., Collins, B.E.
US Provisional Patent Application Case no. 2003-182 (UC-San Diego), February 8, 2003.

"Determining Protein Size Using an Electrochemically Machined Pore Gradient in Silicon"
Collins, B.E., Dancil, K-P.S., Abbi, G., Sailor, M.J.
Adv. Funct. Mater. 12 (2002) 187-191.

"Porous Semiconductor-based Optical Interferometric Biosensor"
Ghadiri, R.M., Sailor, M.J., Montesharei, K., Lin, V.S-Y., Dancil, K-P.S.
US Patent No. 6,720,177. Issued April 13, 2004. Filed February 28, 2001.

"A Porous Silicon Optical Biosensor: Detection of Reversible Binding of IgG to Protein A-modified Surface"
Dancil, K-P.S., Greiner, D.P., Sailor, M.J.
J. Am. Chem. Soc. 121 (1999) 7925-7930.

"Development of a Porous Silicon Based Biosensor"
Dancil, K-P.S., Greiner, D.P., Sailor, M.J.
Mater. Res. Soc. Symp. Proc. 536 (1998) 557-562.

"Macroporous *p*-type Silicon Fabry-Perot Layers. Fabrication, Characterization, and Applications for Biosensing"
Janshoff, A., Dancil, K-P.S., Steinem, C., Greiner, D.P., Lin, V.S-Y., Gurtner, C., Montesharei, K., Sailor, M.J., Ghadiri, R.M.
J. Am. Chem. Soc. 120 (1998) 12108-12116.

"A Porous Silicon-Based Optical Interferometric Biosensor"
Lin, V.S-Y., Montesharei, K., Dancil, K-P.S., Sailor, M.J., Ghadiri, R.M.
Science 278 (1997) 840-843.

"Porous Semiconductor-based Optical Interferometric Biosensor"
Ghadiri, R.M., Sailor, M.J., Montesharei, K., Lin, V.S-Y., Dancil, K-P.S.
US Patent No. 6,248,539. Issued June 19, 2001. Filed October 20, 1997.

"Synthesis and Aggregation of Cationic Porphyrins"
Dancil, K-P.S., Hilario, L.F., Khoury, R.G., Mai, K.U., Nguyen, C.K., Weddle, K.S., Schacter, A.M.
J. Heterocyclic Chem. 34 (1997) 749-755.