Technology Association of Iowa Honors Women of Innovation, Leaders in Iowa’s High-Tech Sector

Nov 15, 2010

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46 innovative women leaders from across Iowa were honored November 11, 2010 during the third annual Women of Innovation awards dinner at the Hi-Vee Conference Center in West Des Moines. The Technology Association of Iowa (TAI) showcased these women leaders in technology, science, and engineering before a crowd of over 250 guests. Ten professionals, academicians, and students were awarded with “Women of Innovation” awards.

“This year’s event provided the forum to celebrate many of Iowa’s most extraordinary and talented women who have not only broken the glass ceiling—but who are dancing on top of the glass ceiling,” said Leann Jacobson, president of the Technology Association of Iowa. “Each year this awards gala allows us to put the spotlight on these exceptional innovators and leaders and hold them up as role models for other girls and women in the industry.”

The Women of Innovation event was supported by the Principal Financial Group, Iowa Department of Economic Development, Pella Corporation, Genova Technologies, Renew Rural Iowa, and the Iowa Math and Science Education Partnership and C3.

2010 Women of Innovation Award Winners

Research Innovation and Leadership: Dr. Julie Dickerson, Associate Professor, Iowa State University. Dr. Dickerson worked with plant scientists to develop a sophisticated data analysis tool used by researchers to test their hypotheses in the context of biochemical pathways, chromosomal locations of genes, and an array of experimental and field conditions. She also specializes in applying “fuzzy logic theory” to identify groups of co-regulated genes, and to infer their genetic network interactions. Dr. Dickerson has over 80 peer-reviewed publications in journals, book chapters, and conference proceedings, and supervises research projects funded by the National Science Foundation and the US Department of Agriculture. She’s also mentored more than 30 Masters and Ph.D. students.

Academic Innovation and Leadership in Secondary Education: Michelle Hill, Waukee High School. Ms. Hill has been instrumental in the Technology Association of Iowa’s HyperStream program, which is designed to encourage 6th through 12th graders to pursue post secondary technology education, in preparation for tech careers in Iowa. Ms. Hill works with Waukee’s Virtual Reality program, and other independent classes, which allow students to explore advanced topics in programming, design, and implementation. She has developed online learning tools with publishers, and has developed teacher-created materials with a specific focus on multimedia tools. She has mentored teachers at Urbandale High School, at the American Institute of Business, and with the Professional Learning Community. This year, she won a Waukee Foundation Grant to bring the newest Adobe Suite to campus for all students.
**Academic Innovation and Leadership in Post-Secondary Education:** Dr. Gail Nonnecke, Professor of Horticulture at Iowa State University. Dr. Nonnecke was a pioneer in the development of ISU's learning communities program for undergraduate students, which has greatly improved retention and graduation rates. She is the faculty coordinator of an innovative undergraduate major established in 2008, “Global Resource Systems.” The interdisciplinary, interdepartmental major enrolled nearly 40 students its first year, in a curriculum that infuses global understanding and internships with agricultural and life science skills and knowledge. In 2007, Dr. Nonnecke was selected Iowa Professor of the Year by the Carnegie Foundation for the Advancement of Teaching and the Council for the Advancement and Support of Education. In 2006, she was awarded the USDA Food and Agricultural Sciences Excellence in Teaching Award.

**Non-Profit/Government Agency:** Maureen Collins-Williams, Director of Business Development and Incubation at the University of Northern Iowa and the UNI Regional Business Center in Waterloo. She created MyEntre.Net, a system of online social network and free web-based entrepreneurial resources, coupled with local services and training for entrepreneurs in Iowa. More than 7,500 entrepreneurs are currently engaged on the site. In 2008, MyEntre.Net was honored with an Award of Innovation by the University Economic Development Association. MyEntre.Net concept is now positioned for national expansion. Ms. Collins-Williams led creation of a UNI business incubator / Regional Business Center in downtown Waterloo. To date, 54 companies have been served by this incubator, collectively creating 157 full-time jobs.

**Entrepreneurial Innovation and Leadership:** Dr. Nicola Pohl, Professor of Chemistry at Iowa State University and President and Co-Founder of LuCella Biosciences in Ames. Dr. Pohl is a world-renowned researcher in the area of carbohydrate chemistry. Dr. Pohl’s work is focused on automated systems to construct complex carbohydrates from sugar building blocks. Automation will revolutionize biology, by allowing biologists to investigate carbohydrate targets that have great relevance in medicine and other fields. It will allow the design of better therapeutics and vaccines.

**Small Business Innovation and Leadership:** Jayne Jackson, Product Manager at PigCHAMP. PigCHAMP was a 30-year-old swine record keeping and analysis program when Farms.com bought the rights to it in 2002. For five years, PigCHAMP’s sales and market share plummeted. Ms. Jackson was asked to take over product development and deliver products that would halt the skid and turn the company around. She wrote business requirements, project plans and managed the development and quality control team through the development of a new version of PigCHAMP software. Soon after the software was released in 2007, it became the new global industry standard. Within one year it was the most widely used product in North America.

**Large Company Innovation and Leadership (Science):** Nan Mattai, Senior Vice President at Rockwell Collins. Ms. Mattai has 25 years experience in the aerospace and defense industry. As Chief Engineer and Chief Technologist, she oversees an annual R&D budget of $1 billion and is responsible for the strategic technical direction and vision for 8,000 engineers around the world, including the company’s first Asian Design Center in India. Under her leadership, the company has introduced synthetic vision that allows pilots to see in poor weather conditions, networked communication systems, and many other revolutionary solutions. Ms. Mattai has established strategies that blend technical, business and entrepreneurial thinking to nurture disruptive innovations, speed development time to market, and improve the way engineers learn. She is a strong advocate for women and minorities in math, science and engineering.

**Large Company Innovation and Leadership (Technology):** Teri Lancaster, IT Manager of Customer Relationship Management Systems at Pella Corporation. She leads a team of eight professional staff members dedicated to providing leading edge capabilities that enable Pella to deliver a marquee customer experience in the company’s in-home selling process. She envisioned, developed and delivered a “1st in the industry” capability of real-time in-home appointment scheduling. This allows consumers to schedule in-
home consultations with a sales rep via the web, call center or sales showroom at their convenience. Ms. Lancaster’s team and her business partners also developed a system to track and manage Pella’s full customer lead-to-sales cycle.

**Collegian Innovation and Leadership: Emma White**, at Iowa State University. Ms. White is pursuing a Ph.D. in Materials Science and Engineering. She maintains a grade point average of 4.00. Her Ph.D. thesis involves the development of a novel silicon alloy “core-shell” nano-particulate—for use as a greatly-improved anode in lithium ion batteries. This material is expected to show higher rate capability and a storage capacity of more than 6 times that of the currently used graphite particulate. In her first year as a graduate student, Ms. White has produced an initial batch of the prototype anode compound in nano-particulate form, characterized its size and structure by transmission electron microscopy, and has finished producing and cycle-testing experimental battery cells. All of her results form the essential proof of concept for a patent application.

**Youth Innovation and Leadership: Elise Backstrom**, senior at Norwalk High School and Central Academy. Ms Backstrom is taking all of her course work at Central Academy—the only Norwalk student to achieve this distinction. She also takes night classes at DMACC West. She is one of only 9 young women in the 2011 International Baccalaureate Diploma Program at Central Academy in Des Moines and the only female pursuing an Engineering Major. She was a City of the Future Design Finalist, and she created a unique design for energy capture from waves and tides known as the “Bobber Generator”. Her International Baccalaureate Art projects use a recycling theme: all of the materials are recycled and promote recycling.

TAI received over 60 nominations for these awards, the only ones of their kind in Iowa. Finalists and winners were selected by Lilia Abron, President of PEER Consultants, PC; Janet E. Phipps Burkhead, Attorney with McKee, Voorhees & Sease, PLC and a brigadier general with the Iowa Army National Guard; Gary Scholten, Executive Vice President and Chief Information Officer at Principal Financial Group; and Michael Sadler, Managing Director of Qwest – Iowa; and David Sengpiel, Senior Investment Manager of the Iowa Farm Bureau Federation. To learn more about the award winners and finalists, log on to [www.technologyiowa.org](http://www.technologyiowa.org).

TAI is a member-based, not-for-profit organization accelerating the success of Iowa’s technology industry. TAI creates and sustains a positive environment for technology-based economic growth and job creation through innovation, advocacy, and leadership. TAI members include organizations of every size, involved in virtually every aspect of technology creation, production, application and education in Iowa.

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