

ASIAN INNOVATION AWARDS

Innovators Target Global Challenges

By EMILY VEACH

Spotting disease and other health conditions, then treating them cheaply and quickly, characterized many of the finalists in The Wall Street Journal's Asian Innovation Awards this year.

Entrepreneurs, companies and research organizations are participating in the effort, and many have increased their investment in health-care research and development. Many of this year's nominations could prove instrumental in responding to a string of natural disasters, including recent earthquakes and their aftermath. Nominees also provide new options for some of the world's most vulnerable populations.

Singapore's Institute of Bioengineering and Nanotechnology targets infectious diseases with its IBN MicroKit, a portable system for quick diagnosis that can be deployed during outbreaks to keep them from becoming pandemics. In the field of drug development and testing, artificial cell membranes from the Institute of Materials Research & Engineering, also in Singapore, could reduce costs in drug trials and speed up medicine development.

Hutchison MediPharma Ltd. has developed HMPL-004, an orally administered drug for ulcerative colitis and Crohn's disease that is based on a traditional Chinese herb.

Another treatment invention is the wearable artificial kidney by Awak Technologies Pte. It provides patients with the option of dialysis outside a treatment center.

For remote communities, Adlens Ltd. has developed Emergensee, eye-glasses whose lens strength wearers can adjust to treat both nearsightedness and farsightedness.

Infants and new parents can benefit from the work of Excelpoint Systems Pte. The company has developed a breath monitor for babies that uses fiber-optic technology to monitor subtle breath movement during sleep.

Ximplar Ltd. and the Chinese University of Hong Kong's ACEHearing device capitalizes on the growth of smartphones, using them as a way to enhance hearing and make hearing tests more accessible.

The 12 finalists span many of the fastest-growing sectors in Asia. The

Asian Innovation Awards 2011 Finalists			
CHINA Hutchison MediPharma	CHINA IBM	HONG KONG University of Hong Kong	HONG KONG Ximplar and the Chinese University of Hong Kong
HMPL-004: An oral drug for ulcerative colitis and Crohn's disease based on a traditional Chinese herb.	Food Safety Simulator: A tool that models how food gets from the farm to the table and analyzes where biological, chemical or fraud risks might occur.	Earthquake Cushion: A mix of shredded rubber tires and soil that fits around the foundation of a building to reduce shaking and damage from earthquakes.	ACEHearing: A hearing-assistance and testing technology that can be incorporated into smartphones.
JAPAN Adlens	JAPAN Toshiba	SINGAPORE Awak Technologies	SINGAPORE Excelpoint
Emergensee: Glasses that can be adjusted by hand to assist both nearsighted and farsighted wearers.	Regza GL1: LCD televisions with 3-D capability that viewers can see without 3-D glasses.	Awak Wearable Artificial Kidney: A lightweight device that provides continuous dialysis to patients with kidney failure.	Baby Breath Monitor: A pad and sensor that monitors breathing patterns in sleeping infants and alerts parents if it detects any irregularities.
SINGAPORE Institute of Bioengineering and Nanotechnology	SINGAPORE Institute of Materials Research & Engineering	SINGAPORE Optiqua Technologies	TAIWAN Miniwiz Sustainable Energy
IBN MicroKit: A portable disease-detection system used to diagnose patients and prevent further infections during outbreaks.	Artificial cell membranes: A method for creating synthetic cell membranes that can behave like the real thing and can be used in drug development and disease research.	EventLab: A combination of software, sensors and other systems that detects water contamination throughout local distribution infrastructures.	Polli-Brick: Translucent, durable building materials that are made from recycled polymers and don't require chemical adhesives because of their interlocking design.

Sources: the companies

Journal received more than 250 entries this year from China, Singapore, Taiwan, Malaysia, Hong Kong and elsewhere in the region.

Adam Smith, Google Inc. director of product management APAC and head of the judges panel, said Asia has an environment in which inno-

vators can flourish. "Innovation is often inspired by unexpected events, and several Asian countries have unfortunately experienced signifi-

cant turmoil," he said in an email. "It was inspiring to observe how innovative ideas that addressed food safety, emergency response, water quality, and earthquake safety could arise from adversity."

As Japan and New Zealand rebuild from earthquakes that devastated their populations in the past year, an earthquake "cushion" developed by the University of Hong Kong could be a worthwhile investment. Made from soil and shredded tires, the cushion fills around a building's foundation to absorb the shock of a quake. Recycled materials also came into play in the Polli-Bricks by Miniwiz Sustainable Energy. Already in use in Taiwan's EcoARK Pavilion, they are made from plastic bottles and can be formed into almost any shape.

Ideas 'addressed food safety, emergency response, water quality, and earthquake safety.'

Many entries highlighted needs for preventive technology such as EventLab, an early-warning water system monitor from Optiqua Technologies Pte., in collaboration with Singapore's national water agency. Also, International Business Machines Corp.'s food safety simulator models the behavior of food supply chain and risk factors, from the farm to the consumer.

Consumer electronics continue to make their mark. Toshiba Corp. says it has developed the "world's first LCD TVs that offer comprehensive 3-D capabilities without any need for dedicated glasses."

In the coming weeks, we will feature the 12 finalists before announcing the winners of the Asian Innovation Awards as well as the Credit Suisse Technopreneur of the Year, which honors an entry that best applies technology with the greatest potential for commercial success.

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