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FOR IMMEDIATE RELEASE

The National Inventors Hall of Fame Announces 2018 Class of Inductees

New Inductees and Contributions to Society to be Honored at May Event

ALEXANDRIA, Va. — Feb. 8, 2018 — Fifteen innovation pioneers whose inventions range from OLED displays to football's yellow "First and Ten Line" will be honored as the newest Class of Inductees in the National Inventors Hall of Fame® (NIHF). In partnership with the United States Patent and Trademark Office (USPTO), NIHF will honor these Inductees May 2-3 at one of the innovation industry's most highly anticipated events — "The Greatest Celebration of American Innovation."

"I am thrilled to join such an inspiring organization that honors the past and challenges the future," said 2018 Inductee Steven Van Slyke, co-inventor of the organic light-emitting diode (OLED). "I am honored that Ching Tang and I are receiving this recognition. I am even more humbled to stand alongside my fellow National Inventors Hall of Fame Inductees who have made the world better through their world-changing innovations."

THE CLASS OF 2018

- **Marvin Caruthers: Chemical Synthesis of DNA**
Marvin Caruthers and his team at the University of Colorado-Boulder developed the methods for chemically synthesizing DNA — a breakthrough that dramatically advanced biological research and helped launch the biotechnology industry. The co-founder of biotech giants Amgen and Applied Biosystems, Caruthers transformed DNA synthesis from a highly specialized basic research application into a widely used research, diagnostic and forensic tool.
- **Stan Honey: Sports Broadcast Graphic Enhancements**
A pioneer in the field of sports television graphics, Stan Honey has transformed the viewing experience of millions of sports fans. Honey and his team created the Virtual Yellow 1st & Ten® line— which has been hailed as one of the most important developments in the history of sports broadcast technology. Work conducted by Honey and his team led to other graphic enhancements in sports including baseball, hockey, NASCAR and sailing.
- **Sumita Mitra: Nanocomposite Dental Materials**
Sumita Mitra — a chemist at 3M Oral Care, the dental products division of 3M Company — invented the first dental filling material to include nanoparticles. The new composite filling material, called Filtek™ Supreme Universal Restorative, is a versatile material that could be used for restoring teeth in any area of the mouth; mimicked the beauty of natural teeth; had better polish retention; and exhibited superior strength than existing dental composites. The product line has been used in more than 600 million dental restorations worldwide, according to 3M.
- **Arogyaswami Paulraj: MIMO Wireless Technology**
Paulraj's wireless technology has revolutionized broadband wireless Internet access for billions of people worldwide. MIMO (Multiple-Input Multiple-Output) improves both transmission data rates and expands network coverage. It is the essential foundation for all current (Wi-Fi and 4G mobile) and future broadband wireless communications.
- **Jacqueline Quinn: Emulsified Zero-Valent Iron (EZVI)**
NASA engineer Jacqueline Quinn led the team that invented an environmentally safe clean-up technology called emulsified zero-valent iron, or EZVI, in the late 1990s. Developed to combat

chlorinated solvent contaminants left over from space exploration's early years, this technology provides a method to remove environmental contamination from groundwater in a quick, effective and cost-competitive manner. EZVI has decontaminated groundwater supplies on numerous government sites and has been licensed extensively for commercial use.

- **Ronald Rivest, Adi Shamir and Leonard Adleman: RSA Cryptography**
RSA Cryptography is the world's most widely used public-key cryptography method for securing communication on the Internet. Introduced in 1977 by MIT colleagues Rivest, Shamir and Adleman, RSA Cryptography is instrumental to the growth of e-commerce and is used in almost all Internet-based transactions to safeguard sensitive data such as credit card numbers.
- **Ching Wan Tang and Steven Van Slyke: Organic Light-Emitting Diode (OLED)**
Chemists Ching Wan Tang and Steven Van Slyke pioneered the organic light-emitting diode, or OLED, an advance in flat-screen displays found in computers, cellphones and televisions that provides increased power efficiency, longer battery life and improved display quality. Products incorporating OLED displays are among the hottest in the consumer electronics market.
- **Warren S. Johnson: Temperature Control (Posthumous)**
Johnson's thermostat and multi-room temperature control system are commonplace for heating and cooling buildings of all types and sizes. He manufactured and marketed his system by establishing the Johnson Electric Service Company, now known as Johnson Controls.
- **Howard S. Jones Jr.: Conformal Antennas (Posthumous)**
Jones invented a flat radio antenna that is designed to conform to or follow a prescribed shape. This antenna is found in applications including rockets, missiles and spacecraft. His innovations in antenna technology expanded the capabilities of U.S. defense and space systems, and they continue to impact defense systems to this day.
- **Mary Engle Pennington: Food Preservation and Storage (Posthumous)**
The first female laboratory chief in the history of the U.S. Food and Drug Administration, Pennington was a pioneer in the safe preservation, handling, storage and transportation of perishable foods. A bacteriological chemist, food scientist and refrigeration engineer, Pennington devoted most of her career to the study of refrigeration and its application to food freshness and safety. Her work safeguarded the health and well-being of generations of Americans.
- **Joseph C. Shivers Jr.: LYCRA® Fiber/Spandex (Posthumous)**
Shivers created LYCRA, the stretchy synthetic fiber known generically as Spandex. Today, LYCRA exists throughout the garment industry — from sportswear and undergarments to high fashion — and it has found applications in other areas including healthcare, home furnishings and the automotive industry.
- **Paul Terasaki: Tissue Typing for Organ Transplants; Terasaki Tray (Posthumous)**
Terasaki invented a tissue-typing test that became an international standard for matching potential organ donors with recipients. The procedure is primarily used today for kidney and bone marrow donors and recipients. He also founded the first kidney transplant registry, and his contributions to developing a cold-storage solution for kidney preservation during shipping helped define the field of transplantation science.

For full biographies of each Inductee, visit <http://www.invent.org/honor/inductees/>.

THE CELEBRATION

The Class of 2018 will be honored at "The Greatest Celebration of American Innovation," a two-day event held in our nation's capital. Mo Rocca, "CBS Sunday Morning" correspondent and host of "The Henry Ford's Innovation Nation," will serve as master of ceremonies.

- **May 2 – Illumination Ceremony at the National Inventors Hall of Fame Museum** at the USPTO Headquarters in Alexandria, Virginia, where new Inductees will place illuminated hexagons displaying their names in the Gallery of Icons.™
- **May 3 – The 46th Annual National Inventors Hall of Fame Induction Ceremony** will be held at the National Building Museum in Washington, D.C., where the new Inductee class will be honored for their contributions to society during an evening including a black-tie dinner, ceremony and after party. To learn more about the event, visit www.invent.org/honor/inductees/induction-ceremony/.

“Through events, exhibits and education programs, the National Inventors Hall of Fame honors individuals every year whose creativity, ingenuity and ability to overcome obstacles have transformed our world,” said NIHF CEO Michael Oister. “The remarkable innovators in our Class of 2018 have made significant contributions to our lives in fields as varied as biotechnology, Internet security, groundwater remediation and wireless technology. They make our lives safer, healthier and more connected.”

About the National Inventors Hall of Fame

The National Inventors Hall of Fame (NIHF) is the premier nonprofit organization in America dedicated to recognizing inventors and invention, promoting creativity, and advancing the spirit of innovation and entrepreneurship. Founded in 1973 in partnership with the United States Patent and Trademark Office, NIHF is committed to not only honoring the individuals whose inventions have made the world a better place, but to ensuring American ingenuity continues to thrive in the hands of coming generations through its national, hands-on educational programming and collegiate competitions focused on the exploration of science, technology, engineering and mathematics. The National Inventors Hall of Fame Museum is a Smithsonian Affiliate. For more information, visit www.invent.org.

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