

Teijin Aramid's carbon nanotube fibers awarded with Paul Schlack prize

New generation super fibers bring wave of innovations to fiber market

Arnhem, the Netherlands, September 26, 2014 – Researchers of Teijin Aramid, based in the Netherlands, and Rice University in the USA are awarded with the honorary 'Paul Schlack Man-Made Fibers Prize' for corporate-academic partnerships in fiber research. Their new super fibers are now driving innovation in aerospace, healthcare, automotive, and (smart) clothing.

The honorary Paul Schlack prize was granted by the European Man-made Fibers Association to Dr. Marcin Otto, Business Development Manager at Teijin Aramid and Prof. Dr. Matteo Pasquali from Rice University Texas, for the development of a new generation super fibers using carbon nanotubes (CNT). The new super fibers combine high thermal and electrical conductivity, as seen in metals, with the flexibility, robust handling and strength of textile fibers.

"The introduction of carbon nanotube fibers marked the beginning of a series of innovations in various industries", says Marcin Otto, Business Development Manager at Teijin Aramid. "For example, CNT fibers can be lifesaving for heart patients: one string of CNT fiber in the cardiac muscle suffices to transmit vital electrical pulses to the heart. Or by replacing copper in data cables and light power cables by CNT fibers it's possible to make satellites, aircraft and high end cars lighter and more robust at the same time."

Since 1971, the Paul Schlack foundation annually grants one monetary prize to an individual young researcher for outstanding research in the field of fiber research, and an honorary prize to the leader(s) of excellent academic and corporate research partnerships to promote research at universities and research institutes.

For several years, leading researchers at Rice University and Teijin Aramid worked together on the development of CNT production. Teijin Aramid and Rice University published their research findings on carbon nanotubes fibers in the leading scientific journal, *Science*, beginning of 2013.

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About Teijin Aramid

Teijin Aramid is a subsidiary of the Teijin Group and world leader in aramids. Its aramid products Twaron®, Sulfron®, Teijinconex®, Technora® and its ultra-high

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molecular weight polyethylene (UHMW-PE) Endumax® are renowned for their strength, sustainability, safety, heat resistance and low weight and are used in different applications and markets including automotive, ballistic protection, marine, civil engineering, protective clothing, ropes, fiber optic cables and oil & gas. These high performance materials are produced in the Netherlands and Japan. For more information: <u>www.teijinaramid.com</u> and <u>www.teijinendumax.com</u>.

About the Teijin Group

Teijin (TSE: 3401) is a technology-driven global group offering advanced solutions in the areas of sustainable transportation, information and electronics, safety and protection, environment and energy, and healthcare. Its main fields of operation are high-performance fibers such as aramid, carbon fibers & composites, healthcare, films, resin & plastic processing, polyester fibers, products converting and IT. The group has some 150 companies and around 16,000 employees spread out over 20 countries worldwide. It posted consolidated sales of JPY784.4 billion (USD 7.7 billion) and total assets of JPY 768.4 billion (USD 7.5 billion) in the fiscal year ending March 31, 2014. Please visit www.teijin.com.

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Marcin Otto (middle) receives the award from Frédéric van Houte, Director General CIRFS (left), right is Prof. Dr. Hilmar Fuchs (Board of Directors).