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Dr. Noureddine Abidi Honored During Award Ceremony at Texas Tech University

Dr. Noureddine Abidi, Professor and Director, Fiber and Biopolymer Research Institute (FBRI), Texas Tech University, Lubbock, TX, USA, was honored during an Award Ceremony conducted by the Discover Natural Fibres Initiative (DNFI) on October 30, 2020 on the campus at Texas Tech.

The Ceremony was overseen virtually by the Chair of DNFI, Ms. Elke Hortmeyer, Director of International Relations and Communications, Bremer Baumwollbörse, Bremen, Germany, (baumwollboerse.de).

Other virtual participants included Ms. Dalena White, Secretary General of the International Wool Textile Organization (IWTO.org), Mr. Stefan Schmidt, Director Department of Technical Textiles, Industrieverband Veredlung - Garne - Gewebe - Technische Textilien e.V. (ivgt.de), and Dr. Christian Schindler, Director General of the International Textile Manufacturers Federation (ITMF.org).

The Award Ceremony was attended by Dr. William Brown, Dean of the College of Agricultural Sciences and Natural Resources, Texas Tech University. Dr. Glen Ritchie, Chair of the Department of Plant and Soil Science, Texas Tech University, Dr. Eric Hequet, Associate Vice President of Research, Texas Tech University and Dr. Dean Ethridge, retired as Director of FBRI, were also able to attend, while upholding local C19 measures.

From industry, Mr. Kevin Brinkley, President and CEO of Plains Cotton Cooperative Association, and Mr. Shawn Wade, Plains Cotton Growers, were also able to attend in person.

Dr. Terry Townsend, Chair of the DNFI Award Committee, awarded the trophy to Dr. Abidi.

DNFI Award 2020

Dr. Abidi won the 2020 DNFI Innovation in Natural Fibres Research Award for his work in developing a process to produce a substitute for oil-based plastic from cotton by dissolving the fibres to form a gel which can be transformed into bioproducts, including plastic films.

One patent has been awarded, which focuses on 3D printing from cellulose gel (US 10,311,993 B2). Two provisional patents are pending which focus on the dissolution of cotton cellulose in ionic liquids and conversion to bioplastic films and other bioproducts.

Cotton fibres are approximately 99% cellulose, and cellulose-derived bioplastics are inherently biodegradable in landfills and composting facilities. Testing shows that when cotton cellulose bioplastic films are buried in soil decomposition begins in about 3 weeks. However, when these bioplastic films are kept in normal household conditions, they remain stable with no sign of degradation. Therefore, products made from bioplastic film would have properties similar to those of plastics currently in common use.

Dean Brown thanked DNFI for honoring Dr. Abidi and the work of the Fiber and Biopolymer Research Institute at Texas Tech. He noted that Dr. Abidi has been highly productive in developing innovative uses for natural fibres.

Dr. Ritchie and **Dr. Hequet** also thanked DNFI for raising awareness of the innovative research being conducted by Dr. Abidi and the FBRI.

Ms. Elke Hortmeyer noted that the Innovation Award emphasizes the great importance of natural fibres and their impressive possibilities. The Award promotes the development of new products, components and applications using natural fibres, as well as new processes for the manufacture of environmentally friendly products. The DNFI Innovation Award recognises not only the innovations themselves, but also the people and institutions responsible for them, with the goal of raising public awareness about the achievements of the natural fibre sector as a whole.

Ms. Dalena White observed that all natural fibres, from linen to wool to jute to hemp to cotton face common challenges and offer innovative solutions that can benefit the world environment and economy.

Dr. Christian Schindler and **Mr. Stefan Schmidt** both noted that the textile industry depends upon natural fibres for its raw material and takes a great interest in all technical developments involving natural fibre industries.

Dr. Abidi is the Leidigh endowed Professor in the Department of Plant and Soil Science and Director of the Fiber and Biopolymer Research Institute at Texas Tech University. He holds a "Habilitation à Diriger les Recherches" from the University of Haute Alsace in France and a Ph.D. from the University of Montpellier II in France. He is a member of the American Chemical Society, the Fiber Society, the ASTM International, the American Association of Textile Chemists and Colorists, and the American Association for the Advancement of Science.

Award winner contact information:

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About DNFI

The Discover Natural Fibres Initiative is a platform for those who believe in natural fibres. DNFI facilitates the exchange of information and experiences and works to advance the common interests of all natural fibres in the face of competition with oil-based and wood-based manmade fibres. Representatives of natural fibre industries as diverse as abaca, alpaca, angora, cashmere, coir, cotton, flax, industrial hemp, jute, mohair, ramie, silk, sisal and wool participate in DNFI.

The Discover Natural Fibres Initiative (DNFI) was created in January 2010 as an outgrowth of the International Year of Natural Fibres 2009, declared by the United Nations General Assembly. DNFI is a voluntary association of individuals and organizations who work to further the interests of natural fibres by serving as a platform for information exchange, including statistics on fiber production and use, and by working to raise awareness of the benefits of natural fibre industries to the world economy, environment and consumers (<u>www.dnfi.org</u>). DNFI is entirely volunteer supported. There are no membership dues, the organization has no budget or Secretariat, and the organization does not conduct projects. Instead, DNFI facilitates communication and collaboration through the exchange of information.

Anyone with an interest in natural fibres is welcome to join DNFI by registering on the web site.

DNFI Contact:

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More information about the aims of the DNFI as well as the DNFI Award and its previous winners at <u>www.dnfi.org/award</u>



