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COMMUNICATIONS

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NFL Announces Winners of HeadHealthTECH Challenge III

Impressio, Inc., HRL Laboratories, and AES Research & Design awarded funding to test and develop innovative protective equipment concepts

TECH Challenge V open for submissions through June 6, 2018

NEW YORK, NY—March 29, 2018—The National Football League (NFL) and Football Research, Inc. (FRI) today announced the winners of the HeadHealthTECH Challenge III, the latest in the [Tech Challenge series](#), which is operated and managed on behalf of FRI by Duke University’s Clinical and Translational Science Institute (Duke CTSI). The TECH Challenge series is designed to stimulate research and innovation in protective equipment including helmets and related technologies, turf systems, shoulder and other pads, and additional innovative concepts.

Additionally, the NFL and FRI announced the opening of the [submission window for TECH Challenge V](#) through June 6, 2018. TECH Challenge IV winners are expected to be announced in June 2018.

“Through grant awards to the winners, and the mentorship and feedback from Duke CTSI to each company that submits, the TECH Challenge series continues to serve as an innovative engine in the advancement of sports safety protective equipment,” said **JEFF MILLER**, NFL Executive Vice President of Health and Safety Initiatives. “The winners of TECH Challenge III showcase a range of promising materials designed to absorb and reduce impact, and we are proud to support their development.”

“This program offers more than grants—it’s an opportunity to work closely with our team at Duke CTSI to help get a new idea or technology off the ground and into the marketplace,” said **BARRY MYERS**, MD, PhD, MBA, Director of Innovation at Duke CTSI, Coulter Program Director and Professor of Biomedical Engineering at Duke University and a consultant to the NFL Players Association (NFLPA). “I am excited by the progress range of proposals we’ve seen throughout the series, and I encourage all inventors and entrepreneurs to submit their ideas for TECH Challenge V.”

TECH Challenge III Winners:

- [Impressio, Inc.](#)—Denver, Colorado—in partnership with the University of Colorado, Denver, received a grant of \$121,949 to support development and testing of its ultra-dissipative football helmet padding made from liquid-crystal elastomers (LCEs). Impressio utilizes LCEs to create novel dissipative liner materials for protective equipment designed to overcome the existing challenges of energy absorption in current helmet foams with the goal of better protecting athletes. Impressio is a materials engineering company dedicated to improving human health and safety through innovative applications of LCE Technology.

- [HRL Laboratories, LLC](#)—Malibu, California—received a grant of \$186,043 to support development and testing of its novel impact-attenuating pads for football helmets. HRL’s three-dimensional lattice padding aims to offer improved volumetric energy absorption compared to existing vinyl nitrile foam pads.
- [AES Research & Design](#)—Baltimore, Maryland—received a grant of up to \$20,000 for the testing of its anti-rotational kinematic (ARK) helmet prototype, which is designed to significantly reduce the rotational forces that a football player experiences during contact. The ARK helmet is a collaborative project involving the Hopkins Extreme Materials Institute at Johns Hopkins University, National Technical Systems and several material suppliers.

FRI awards the most promising TECH Challenge proposals with a cumulative value of up to \$1 million a year, including in-kind support. For TECH Challenge III, a panel of expert judges selected by Duke CTSI, in collaboration with FRI, reviewed and provided feedback all proposals. Every TECH Challenge applicant is invited to reapply and receives constructive feedback from Duke CTSI biomechanical experts to help refine innovations and increase chances for success on future submissions.

About HeadHealthTECH Challenges

The HeadHealthTECH Challenge series is one component of the [Play Smart. Play Safe.](#) Engineering Roadmap, a \$60-million comprehensive effort—funded by the NFL and managed by FRI—to improve the understanding of the biomechanics of head injuries in professional football and to create incentives for helmet manufacturers, small businesses, entrepreneurs, universities and others to develop and commercialize new and improved protective equipment, including helmets. Launched in November 2016, the TECH Challenge series is operated and managed on behalf of FRI by Duke University’s Clinical and Translational Science Institute (Duke CTSI).

To date, the TECH Challenges have rewarded more than \$960,000 in grants to help advance the development of eight new technologies. [Winners of TECH Challenge I](#), announced in April 2017, include [VyaTek Sports](#) for its highly efficient energy-absorbing Zorbz technology and [Guardian Innovations](#) for its Guardian Cap technology—a soft helmet cover designed to reduce the severity of impacts. [TECH Challenge II winners](#) included [2ND Skull](#), to research the effectiveness of its 2nd Skull® skull cap in reducing impact forces and developing a second-generation version; [Baytech Products](#), for its prototype HitGard® multi-component helmet system concept; and [Windpact](#), for its Crash Cloud™, an impact liner system using restricted air flow and foam in helmets and protective gear. Information about TECH Challenges and the process for making a submission can be found at: www.PlaySmartPlaySafe.com/HeadHealthTECH.

About the NFL’s Health and Safety Initiatives

The NFL is committed to advancing progress in the diagnosis, prevention and treatment of sports-related injuries. As part of the NFL’s ongoing health and safety efforts, in September 2016, Commissioner Goodell launched *Play Smart. Play Safe.*—a league-wide health and safety initiative. At the heart of the initiative is a pledge of \$100 million in support for independent medical research and engineering advancements and a commitment to look at anything and everything to protect our players and make our game safer, including enhancements to medical protocols and improvements to how our game is taught and played. For more information about the NFL’s health and safety efforts, please visit www.PlaySmartPlaySafe.com.

For more information on the *Play Smart. Play Safe.* Engineering Roadmap, please visit

<https://www.playsmartplaysafe.com/newsroom/videos/nfls-engineering-roadmap-driving-progress-toward-better-protective-equipment/>.

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