

HealthTECH Challenge I

REQUEST FOR APPLICATIONS

Application Deadline: 5:00 p.m. ET, February 20, 2024

The National Football League (NFL) and Football Research, Inc. (FRI) have partnered with Duke Biomedical Engineering (Duke BME) to create the HealthTECH Challenges (formerly referred to as the HeadHealthTECH Challenges), a series of innovation challenges intended to deepen understanding of and advance solutions in the areas of head protection, lower extremity protection, materials science, and kinematic measurement, among others.

HealthTECH Challenge I (HTC I or this Challenge) is open to innovation with special focus on products that improve the safety of athletes and/or consistency on synthetic and natural surfaces. Products may provide novel maintenance techniques and/or equipment that reduce variability across the surface and/or over time, methodologies to prolong viability of stadium installations of natural grass surfaces, topical treatments for synthetic surfaces to adjust shoe-surface traction, equipment to reduce loads and protect surfaces during non-sporting events, and/or load monitoring technologies. This Challenge is structured to stimulate research and innovation, as well as encourage connections with mentors and/or venture capitalists, with a goal of spurring developments in engineering, advanced manufacturing, and material science while providing project management assistance and access to resources/services in a collaborative and service-oriented fashion. The primary goal is to bring these innovations on-field to improve the safety and consistency of playing surfaces. Applications from large existing companies, new ventures, design houses and academia are encouraged. Applications may reflect products to be applied to all surfaces or, alternatively, products can be designed specifically to enhance the safety or consistency of specific types of grass or synthetic fields.

I. Purpose

This Challenge will provide funding up to \$100,000 to innovations that substantially advance understanding of how new/existing surface constructions, treatments, field monitoring, on-field measuring, and/or maintenance equipment may be used to reduce injuries and improve field consistency for athletes. This Challenge seeks to provide funding for development of mature research (i.e., research that is currently in, or ready for, wide scale implementation) that, if successful, will lead to a partnership to be formed by the leadership along with diverse team members that may include industry and academia (faculty and/or students).

The goal of this Challenge is to enable and accelerate translation of research (and, in connection therewith, new company formation, license, or partnership are all encouraged). Applicants will work toward major milestones that may enable this translation. Projects selected for funding will be assigned a translational support team to deliver a proposed development path, outsourcing plan, and detailed project.

The project teams are encouraged to include the following objectives while furthering their design, development, and commercialization strategies:

- Conduct experimental evaluations to quantify safety and playability of playing surface

compositions, treatments and/or maintenance practices

- Provide or seek technical support for development and evaluation of field protective equipment that reduces the impact and wear on fields during non-sporting events.
- Perform studies that monitor changes in surface attributes over time in response to weather, sporting and non-sporting usage, or durability effects.
- Conduct analyses on the effectiveness of various maintenance techniques for synthetic and natural grass surfaces in reducing the intensity of shoe-surface interactions responsible for player injury.
- Review and analyze data to support development of risk profiles and optimal risk-reducing specifications for surfaces.
- For each bullet above, the submitting team may need to establish relationships with, a contract with, NFL stadium facilities or other stadium facilities.

I. Eligibility

This Challenge is open to all individuals over the age of 18 who have not been convicted of a felony or crime of moral turpitude and to all validly formed legal entities that have not declared or been declared in bankruptcy. Employees and contractors of any of the Sponsor Parties and/or any of their respective affiliates or subsidiaries are eligible to enter and participate in the Challenge but are not eligible to win any prizes. Multiple Proposals are permitted. Each Proposal will be reviewed independently. Multiple individuals or entities may collaborate to submit a single Proposal, but a single individual must be designated as an official representative for each entry (the “*Primary Contact*”). Participation is subject to all U.S. federal, state and local laws and regulations. Void where prohibited or restricted by law. You are responsible for checking applicable laws and regulations in your jurisdiction before participating in this Challenge to make sure that your participation is legal. If you are entering on behalf of a company or an institution, you are responsible for confirming with your company or institution that the Proposal does not violate any established policies.

II. Funding Rules

All judging, eligibility and award decisions are at the sole discretion of FRI and are deemed final and not subject to review or explanation. One or more of the Sponsor Parties shall announce via the HealthTECH Challenges website to whom FRI has made a funding award. Proposals meet the judging criteria for this Challenge, in either FRI’s or the Oversight Committee’s (as defined below) sole discretion. All potential winners will be notified by the e-mail address for the Primary Contact provided in the submission form and will be required to complete further documentation confirming their eligibility. Return of any notification as “undeliverable” will result in disqualification. After execution of such further documentation and verification of eligibility, Awards will be distributed in the form of a check addressed to the Primary Contact. The Primary Contact will have sole responsibility for further distribution of any cash Award among participants in a group Proposal or within a company or institution that has submitted a Proposal. Each list of Proposals receiving Awards for this Challenge will be made public as described on the TECH Challenges website.

At the time that an Award is announced, a funding schedule for the payment of such Award shall also be announced.

All Awards are a one-time offer and there is no offer of licensure, royalty, or other financial compensation implied beyond the initial round of Awards. Each Award winner is responsible for all taxes and reporting related to any Award that such winner receives as part of this Challenge.

This Challenge is a contest of skill. Whether or not your Proposal is determined to be the potential recipient of an Award depends on how your Proposal compares to the other Proposals submitted in the Challenge when evaluated based on the judging criteria for this Challenge.

Awarded amount are direct costs of the project only, with overhead amounts to be capped at 20%.

III. Proposal Preparation

- Request for guidance (optional) may be sent to HealthTECH@duke.edu by February 16, 2024
- We will review your guidance request and arrange a consultation meeting with appropriate consultants based on the specific project needs to provide feedback prior to application submission.

IV. Selection Process and Review Criteria

1. Application Submission: Duke BME and a panel of expert judges established jointly by Duke BME and FRI (“*Oversight Committee*”) shall assess all Proposals using the following assessment criteria, along with any other criteria determined between now and the end of this Challenge, so long as such additional criteria are consistently applied across all Proposal reviews:
 - Proposals must include a project scope of work that is one year or less.
 - The submitting party must demonstrate the technical feasibility of quarterly milestones that will be achieved during the funding period.
 - Proposal must include specific plans or proposals relating to their next phase of the project plan;
 - Proposal must lay out a clear financing, licensing or go-to-market plan;
 - Proposal must include a description of resources of environment to achieve milestones; and
 - Proposal must include the relevant background of the team /organization/lab submitting the response.
2. Feasibility – Project scope of work is appropriate for the timeframe and level of funding.
 - Translation – Translational potential of the opportunity presented by the proposed activity including:
 - The project is sufficiently scientifically interesting to attract potential investors or licensors;
 - The commercial potential, either by virtue of market size or unmet need in a smaller population can command premium pricing;
 - The competitive landscape, including products in development that might impact the potential to partner or translate the innovation.

V. Key Dates

- Application Submission Deadline: February 20, 2024
- Selection of Finalists and Oral Presentations: April 2024
- Final Selection: May 2024
- Funding Period: May 2024- May 2025

Capitalized terms not defined herein shall have the definitions given them in the Official Rules.