



Seed Breeding, Smart Insoles Receive UNHInnovation Fund Grants

Funding supports expanded commercialization of UNH research

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UNH'S LONG-STANDING BREEDING PROGRAM OF CURCUBITS — VINING PLANTS LIKE SQUASHES, PUMPKINS, MELONS AND CUCUMBERS — RECEIVED AN INAUGURAL UNHINNOVATION FUND GRANT. PHOTO BY SCOTT RIPLEY.

Two disparate faculty research projects — squash and pumpkin seeds and smart insole sensors — got a boost from the inaugural [UNHInnovation Fund](#) recently. The fund awarded two \$50,000 grants to help Christopher Hernandez, assistant professor of agriculture, nutrition and food systems, and assistant professor of

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electrical and computer engineering Diliang Chen move their innovations closer to licensing and commercialization.

The funding to Hernandez will support efforts to expand commercialization opportunities for UNH's cucurbit breeding program. Hernandez aims to develop new varieties of squash, pumpkins and melons with improved characteristics such as increased market yield, disease resistance and nutritional quality. In addition, he will collect genetic data via DNA sequencing at UNH's Hubbard Center for Genome Studies on key UNH breeding lines to preserve a vast collection of seeds and historical genetic



ASSISTANT PROFESSOR OF
ELECTRICAL AND COMPUTER
ENGINEERING DILIANG CHEN.
PHOTO BY BROOKS PAYETTE.

information, ultimately making breeding lines available for license to farmers in New Hampshire and worldwide.

Chen will utilize the funds to further develop an auto-calibrated smart insole that measures ground reaction force (GRF), with commercial applications that include healthcare, occupational safety and sports performance. Unlike current smart insole technologies that require manual calibration before each use, this novel innovation achieves automatic calibration through a unique insole design and proprietary algorithms. The funds will allow for further market research, identification of potential customers and development of a comprehensive prototype to showcase the

technology in a range of applications.

The [UNHInnovation Fund](#) will reopen for its second cycle of proposals in August and will award up to two grants during both the fall and spring competition cycles.

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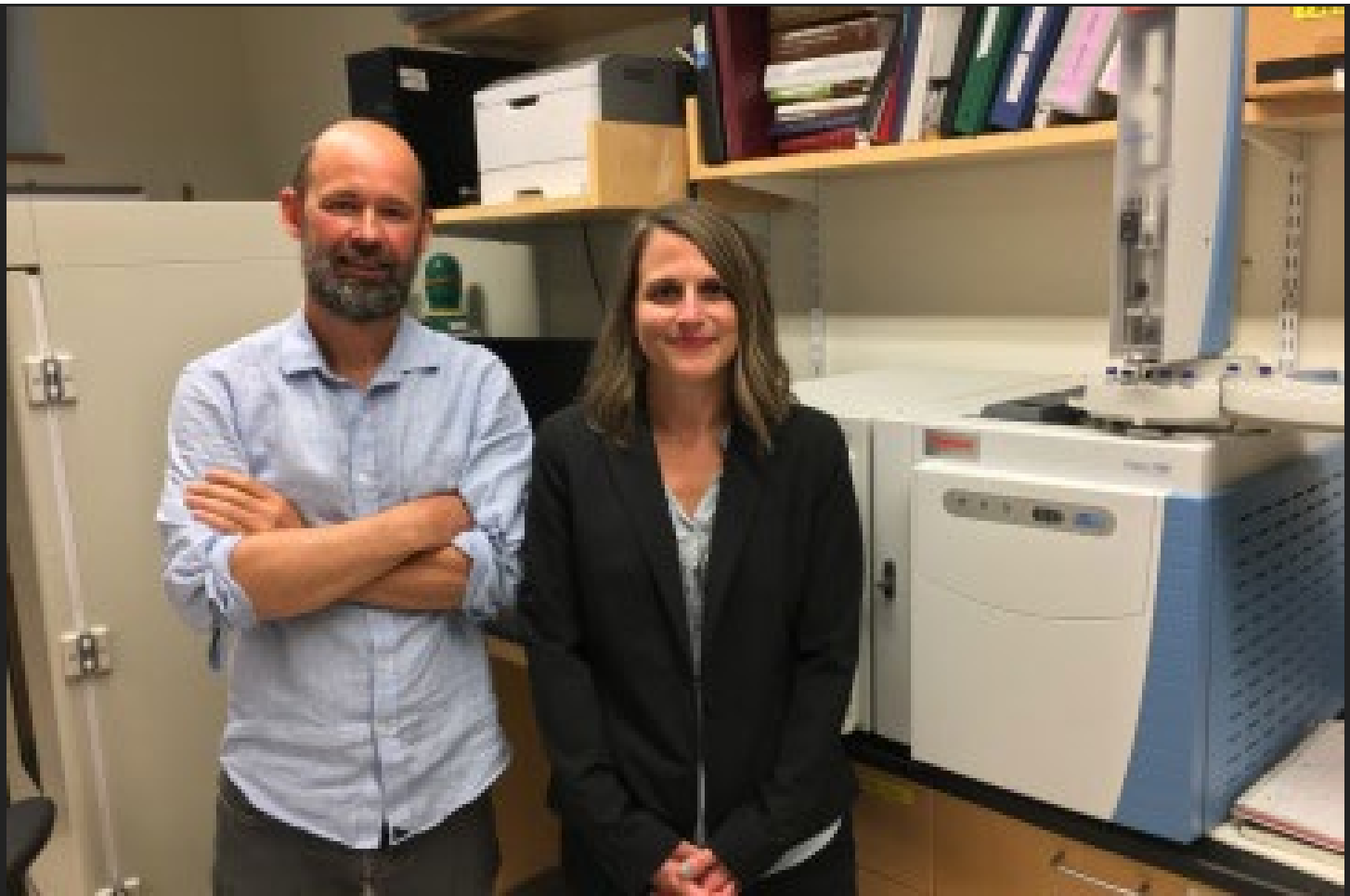
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