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## Pain Management Research Receives Additional Funding from Intel

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Engineering and psychology researchers at The University of Texas at Arlington have received a grant from Intel, the developer and manufacturer of computer components, to provide additional support for their research to develop pain management systems.

Dr. J. C. Chiao

Electrical Engineering Professor Jung-Chih Chiao and Psychology Associate Professor Yuan-Bo Peng are developing an integrated, low-power, wireless body networking system to address the complex issues in managing chronic pain, Parkinson's disease and other debilitating conditions by utilizing a wearable neurostimulation device. Their ultimate goal is to create an integrated digital personal health management system that can closely monitor the performance of the implants, wirelessly communicate the physiological signals to patients and doctors, and achieve the best treatment for every patient's medical situation.

Chronic pain is the most common reason individuals seek medical care, with millions of medical visits annually, costing the American public hundreds of billion dollars each year, plus the costs in productivity loss and family suffering. "These costs are invisible but real," said Dr. Peng. "Do any of your parents, siblings or children suffer from chronic pain? How much does it affect their performance?" In addition to being physically incapacitating, chronic pain often produces various psychosocial problems such a sleep disorder or depression.

Drs. Chiao and Peng have been working under the support by the National Science Foundation on neurostimulation to inhibit pain signals to the brain. In this project extension, they will be collaborating with Dr. Debabani Choudhury at Intel's Beaverton, Oregon facility and with additional Intel researchers. This project, issued through Intel's University Research Program, supports Intel's visions for Personal Telehealth, providing tools enabling patients and clinicians to work together to achieve the best outcomes cost-effectively.

Dr. Chiao believes, with Intel's support, "We can find a relief from pain."

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