



Deborah MacLatchy, Vice-President: Academic and Provost
Acting Vice-President: Research
519-884-0710 ext. 2859 or vpacademic@wlu.ca

Kevin Crowley, Director: Communications & Public Affairs
Wilfrid Laurier University
519-884-0710 ext. 3070 or kcrowley@wlu.ca

JULY 29, 2015 | 130-15

Laurier researcher receives federal funding for innovative development of nanoscale composite materials

WATERLOO – Laurier researcher Vladimir Kitaev is contributing to the synthesis and exploration of a new generation of materials that enable sensors to be smaller, smarter and more sensitive.

The Canada Foundation for Innovation (CFI) has awarded Kitaev \$87,500 as part of the John R. Evans Leaders Fund for his project to further explore and construct advanced materials, based on nanoscale building blocks. Kitaev will also study functional properties of these materials.

“This support will allow my team to explore advanced applications in optical sensors and further expand my work in the areas of catalysis, optics and environmental remediation,” said Kitaev, a professor in Laurier’s Department of Chemistry and Biochemistry.

As an expert in nanoparticles, Kitaev explores nanoscale building blocks to allow for customization of new advanced materials through the manipulation of nanocomposite structure. One of the important directions he will pursue is the exploitation of beneficial properties of these new materials, specifically focusing on their uses in improving the sensitivity of optical devices and sensors and also detecting and removing contaminants from water. These sensors can be used in medical devices or in devices that automatically determine minute quantities of different compounds on a surface through sensitive optical detection.

The CFI funding will allow Kitaev’s lab to efficiently study nanoscale materials with greater spatial resolution and more accurately and quickly complete chemical property testing. This will allow the team to more efficiently describe materials and test their properties and applications. This is vitally important to the process of creating innovative new materials with confirmed, practical uses. Kitaev will also use the ability to control the properties of these created materials to remove organophosphates from water. Organophosphates are the basis of many insecticides, herbicides, and nerve agents that are hazardous to bees, wildlife and humans.

“Vladimir Kitaev’s work is on the cutting-edge of industrial applications,” said Deborah MacLatchy, Laurier’s vice-president: academic and provost and acting vice-president: research. “We are very excited about the potential of his work to contribute to scientific discovery and innovation in Canada.”

The CFI’s John R. Evans Leaders Fund offers institutions the opportunity to acquire foundational infrastructure for leading research faculty to undertake cutting-edge research. In turn, this enables institutions to remain internationally competitive in areas of research and technology development.

For more information about Kitaev’s lab, visit his [website](#). For more information about Canada Foundation for Innovation programs, visit its [website](#).