



For Immediate Release — Friday, August 17, 2018

ARRTI Speaker Series features University of Calgary cancer researcher discussing DNA repair

Cancer is a major global health issue. Nearly one in two Canadians will be diagnosed with cancer during their lifetime, and one in four will die from the disease. Accordingly, it is of the utmost importance to research the underlying causes and mechanisms of this disease.

Deoxyribose nucleic acid, more commonly known as DNA, is the key biomolecule that acts as the hereditary material in almost all organisms. DNA carries the information that is passed onto offspring and is critical for the survival of an individual. Errors can be introduced into DNA due to endogenous processes, such as DNA replication, or following DNA damage from exposure to chemicals and other environmental factors, such as ultraviolet radiation. These errors can lead to severe problems, such as cancers and other hereditary diseases.

On Tuesday, August 21, the University of Calgary's Dr. Gareth Williams will present his work as part of the University of Lethbridge's Alberta RNA Research and Training Institute (ARRTI) Speaker Series. His research is focussed on understanding how our proteins protect against cancer by acting as nano-machines to repair DNA damage caused by endogenous metabolism or exposure to environmental factors.

Williams is a new investigator who started his laboratory investigating the structural biology of DNA repair at the U of C in 2016. He is a member of the Robson DNA Science Centre in the Arnie Charbonneau Cancer Institute, and the Biochemistry & Molecular Biology department. Williams is originally from the U.K., where he did his PhD in X-ray crystallography at the University of St. Andrews under the supervision of Dr. James Naismith, and his undergraduate degree at the University of Nottingham.

His talk, *Biochemical and structural basis for how the human RAD51 paralogs promote homologous recombination repair*, will take place **Tuesday, August 21 at 10:30 a.m. in room B650** (University Hall) at the University of Lethbridge and is open to the public.

ARRTI has been holding the ARRTI Speaker Series since 2014, in which researchers, both local and external, are invited to speak about their current research in RNA and related

topics. This year, in recognition of its influence, the ARRTI Speaker Series is sponsored by the International RNA Society as part of its RNA Salon initiative to promote RNA-related research.

To view online: <http://www.uleth.ca/unews/article/arri-speaker-series-features-university-calgary-cancer-researcher-discussing-dna-repair>

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