Dr. Richard B. Kim

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Dr. Kim received his medical degree from the University of Saskatchewan in 1987. After completing an internship and residency training in Internal Medicine, he went on to carry out fellowship training in Clinical Pharmacology at Vanderbilt University from 1991-1994, and then remained at Vanderbilt as a faculty member in Clinical Pharmacology where he rose to the rank to tenured full Professor by 2004. Dr. Kim was recruited to Western from Vanderbilt University in 2006 to head the Division of Clinical Pharmacology, which has now become the largest clinical pharmacology training program in Canada, and second largest in North America. He also holds the Wolfe Medical Research Chair in Pharmacogenomics at Western. He has been actively leading a program of excellence in Personalized Medicine. In 2008, he started the first personalized medicine clinic in Canada and since 2011, personalized medicine inpatient consultation service has been available for patients who are at risk for toxicity or subtherapeutic benefit from a number of drugs in clinical use whether for children or the elderly, for cardiovascular disease, inflammatory conditions, and cancer.

Summary:
Adverse drug reactions are common and costly. We know that genetic differences among our patients can lead to unexpected drug toxicity as well lack of benefit. Since 2008, our team has provided personalized medicine-based care to our patients here at the London Health Sciences Center (LHSC). We have focused on how genetic variations in the genes involved in drug breakdown and elimination from the body for figuring out the best drug treatment options for patients here in London. To date, our team has assessed and treated nearly 3000 patients at LHSC. We believe that our personalized medicine-based approach is ready for implementation in the community, particularly for the frail elderly and those in long-term care facilities, who are more likely to require complex drug therapies. Our efforts in this regard will be to integrate our genomic capabilities with telemedicine (secure video linkage between our team and health care providers in long-term care facilities) so that “right dose of the right drug at the right time” can be prescribed for our elderly patients. Our team will be able to provide personalized drug dosing and selection for drugs such as warfarin (a blood thinner), various pain medications, antidepressants, cholesterol lowering drugs called statins, and a number of cancer chemotherapy drugs. We believe that by providing our personalized medicine-based patient care to the elderly

in the community long-term care facilities, we will not only enhance the quality of life for our patients, but also reduce overall health care costs by reducing clinic visits or hospitalizations.
Examples of our efforts can be noted in weblinks shown below.

- http://www.cbc.ca/player/News/ID/2321186415/
- http://www.lhsc.on.ca/About_Us/LHSC/Publications/2010/stories/story04/index.html
- http://www.lhsf.ca/hospital-priorities/current-fundraising-projects/personalized-medicine
- https://www.schulich.uwo.ca/rapport/stories/articles/2012/10/11/let-s-get-personal
- http://www.lhsc.on.ca/About_Us/LHSC/Publications/Homepage/Personalized-Medicine-at-LHSC.htm