Pushing the envelope

From nuclear physicist to distinguished medical educator is quite a stretch. But if his career path surprises others, it strikes Geoff Norman as patently logical. “We’re scientists, first and foremost,” he says of the researchers in McMaster’s Program for Educational Research and Development (PERD), a group dedicated to advancing teaching, learning and evaluation in the health sciences.

“We don’t sit on curriculum committees. We’re like a SWAT team. We shoot the place up and then we leave. It’s what keeps us nimble.”

Staying nimble has earned Norman a reputation as one of the world’s leading medical educators. His list of honors includes the Medical Council of Canada Outstanding Achievement Award, the John P. Hubbard Award for significant contributions to the field of evaluation in medicine (he is one of just 7 Canadian recipients) and the coveted Karolinska Prize, awarded biennially to the world’s top medical education researcher.

By researching how doctors think, he changed the way medical students learn and helped to establish problem-based learning (PBL), a radical new approach that transformed medical education worldwide.

The Multiple Mini Interview, which he developed with other PERD researchers, has revolutionized the medical school admissions process. Ten years after its introduction, three quarters of all Canadian med schools have eschewed the traditional lottery system and now challenge applicants to think on their feet while being confronted with a series of real-life medical situations.

But his newest innovation, the COMPASS curriculum, is the one that makes him most proud. Merging problem-based learning with principles of cognitive psychology – Norman holds the Canada Research Chair in Cognitive Dimensions of Clinical Expertise – he has created an evidence-based curriculum focused on “understanding processes instead of memorizing diagnoses”.

For Norman, it’s a welcome reversal of a ’90s curriculum that overemphasized what to learn at the expense of learning. “Sometimes we don’t need to learn, we just need to know,” he quips with characteristic irreverence. “Last time I looked, collarbones were still in the same place.”