

## **Bob Kiaii, BSc, MD, FRCSC, FACS**

### ***BIO SKETCH***

Dr. Bob Kiaii is a Professor in the Department of Surgery and Chief of the Division of Cardiothoracic Surgery at the University of California Davis in Sacramento, California, USA. He is the immediate past President of the International Society of Minimally Invasive Cardiothoracic Surgery.

Dr. Kiaii was a Professor in the Department of Surgery and Chair of the Division of Cardiac Surgery at the Schulich School of Medicine and Director of the Minimally Invasive Robotic Cardiac Surgery Program at the London Health Sciences Centre at Western University in London, Ontario. He was the endow Chair of the Ray and Margaret Chair of Surgical Innovation at Western University in London, Ontario.

### **Research Applications**

He was one of the founding members of Canadian Surgical Advanced Technology and Robotics (CSTAR) of the Lawson Health Research Institute. Despite his extremely busy clinical practice, Dr. Kiaii's interest and expertise in minimally invasive robotic cardiac surgery allowed him to be an active scientist at CSTAR. He participated in collaborative work with engineers at the University of Western Ontario, cardiologists at the London Health Sciences Centre, and scientists at the Robarts Research Institute. Dr. Kiaii is one of the most experienced minimally invasive robotic cardiac surgeons nationally and internationally and received a Canadian Foundation for Innovation New Opportunities Fund Grant, which allowed him to do the research for performing simultaneous integrated coronary artery revascularization. Dr. Kiaii was the site principal investigator of numerous multi-center clinical Trials studying the effectiveness of different transcatheter valves in the treatment of aortic valve stenosis.

Research Applications Despite his extremely busy clinical practice, Dr. Kiaii's interest and expertise in minimally invasive robotic cardiac surgery allowed him to be an active scientist at CSTAR. He has been doing collaborative work with engineers at the University of Western Ontario, cardiologists at the London Health Sciences Centre, and scientists at the Robarts Research Institute. Dr. Kiaii is one of the most experienced minimally invasive robotic cardiac surgeons nationally and internationally. He received a Canadian Foundation for Innovation New Opportunities Fund Grant, which allowed him to do the research for performing simultaneous integrated coronary artery revascularization.

### **Notable Achievements**

Dr. Kiaii has performed ground-breaking minimally invasive robotic-assisted cardiac procedures including the first North American simultaneous integrated coronary artery revascularization procedure on September 1, 2004. Since then, he has had the most experience and has performed the largest series of simultaneous integrated coronary artery revascularizations in the world. He also performed the first Canadian totally endoscopic coronary artery bypass grafting on the beating heart using the da Vinci® Robotic System, the first Canadian robotic-assisted multi-vessel coronary artery bypass, and the world's first robotic-assisted left atrial

appendage ligation for atrial fibrillation. In 2011, Dr. Kiaii performed the world's first aortic valve bypass using the Correx apical conduit and the world's first repair of a perforation of the right atrium using the da Vinci® Robotic System. Dr. Bob Kiaii and his team at LHSC were also the first to broadcast a real-time cardiac surgical procedure to surgeons in Bucaramanga, Colombia in June 2011. In 2014 and 2015, he was part of the heart team that utilized a novel self-expanding transcatheter heart valve (Symetis Accurate Valve) for the first time in North America. In 2018, he performed the world's first Robotic-assisted aortic valve replacement for aortic valve stenosis. In 2020 he developed the robotic valvular program in Sacramento and the team performed the first robotic mitral valve procedure in Northern California.

His primary interests continue to remain minimally invasive, Robotic-assisted and transcatheter cardiac surgical procedures including coronary artery revascularization, mitral and aortic valve procedures, and surgical treatment of atrial fibrillation. He has served on numerous scientific advisory boards, and is a regular reviewer of grant submissions and journal articles as an expert in the field of minimally invasive surgery. His bibliography includes 8 book chapters, 189 peer-reviewed papers, 136 published abstracts, and more than 191 guest lectures.