Dr. Jeremy Ben-Shoshan says today's interventional cardiology offers therapeutic technologies that looked unrealistic a decade ago.

Jeremy, 39, is a 2017-2018 APF Clinical Fellow in Interventional Cardiology at the Montreal Heart Institute.

His family accompanied him from Ra’anana to Montreal where they will stay two years. They are: Mom Galit, 39, an accountant who is currently working in Montreal’s Israeli consulate; son Ilay, 14 and daughters Maya, 10 and Adi, 7.

Jeremy was born in Lyon, France. His family made Aliyah when he was 8 years old.

His father and younger brother are family physicians. As a child, he saw the value and privilege of being a physician, yet also the hard work and constant devotion it demands. But when he was about 20, for him, there was very little actual debate about careers.

“Medicine marvelously offers the chance to connect with other human beings, to gain their most intimate trust and help them. Medicine matches the amazing nature of the human body with modern technology at its highest level. Very few other professions, if any, can expose one to such a multifaceted practice.”

After military service, Jeremy attended medical school at Tel-Aviv University. By the second year of medical school Jeremy knew he wanted to be a cardiologist. “The physiology of the heart fascinated me from the beginning of my medical studies,” he said.

Jeremy graduated with an M.D./Ph.D. His Ph.D. was completed during three years in the basic science laboratory of the cardiology department of Tel-Aviv Sourasky Medical Center, under the supervision of Professor Gad Keren, head of cardiology. His thesis focused on the mechanisms of atherosclerosis and the potential of stem cell therapy.

“Using stem cells and genetic modifications, we investigated tools for induction of blood vessels sprouting as natural bypasses of occluded vessels. Professor Keren supported me all the way – from my first steps in the lab, through cardiology residency and until now.” Jeremy’s work in Keren’s lab won awards in various scientific conferences and was published as several articles in distinguished journals.

Subsequently, his doctoral achievements enabled him to choose his internship spot, Sourasky, which he also later chose for both his internal medicine and cardiology residencies. “It is one of the largest hospitals in Israel, has a well-known cardiology program and offers the privilege to work with world-renowned cardiologists.”

Jeremy completed his internal medicine residency in the department of Professor Hanan Gur-Guzner, Sourasky’s Chairman of the Division of Medicine and Director of The Department of Internal Medicine B. “Professor Gur-Guzner is my physician role model. Medical education has remained his highest priority for decades. I learned from him the basics of medicine -- how to listen and obtain an appropriate medical history from your patient, focus on the essential details to achieve a proper differential diagnosis and how to perform a physical exam.”

Later on, Jeremy was captivated by interventional cardiology early in his cardiology residency, appreciating the multidimensional nature of the sub-specialty. “I think interventional cardiology is one of the most exciting fields in modern medicine. It’s a fascinating encounter between classical medicine and cutting edge minimally invasive
procedures that allows us to provide sophisticated treatment for heart attacks, heart valve diseases and congenital heart disease.

“Interventional cardiology largely involves emergency cases in which the benefits of the treatment are, hopefully, reflected almost instantaneously in your patient’s well-being. In this aspect, it’s a very rewarding field for the caregivers, who can enjoy talking to a patient who was near death a short time ago.”

WHAT IS THE NATURE OF YOUR FELLOWSHIP?

“The first year is dedicated to routine diagnostic and therapeutic percutaneous techniques to treat coronary artery disease, for example, while also treating heart attacks. During our work we are exposed to various intravascular imaging and physiological methods which have become part of routine work in the heart catheterization lab. We also learn hemodynamic evaluation of structural and valvular heart diseases as well as pulmonary diseases.

“During the second year we continue with coronary procedures, but do higher risk and more complex ones. In parallel, each fellow focuses on additional fields of interest. My interest is in structural heart disease.”

DID YOU HAVE TO LEAVE ISRAEL FOR SUCH AN EXPERIENCE?

“The procedures and technologies employed here exist in Israel. In fact, some of them were developed by Israeli groups. I think that for a fellow, however, the main concern in order to become a specialist is a large volume of procedures and a well-developed teaching methodology. Both are present at the Montreal Heart Institute, one of the largest cardiology centers in North America and a leader in the field world-wide.”

IS IT INTENSE?

“Yes. We start at 7:00 a.m. There are six to seven fellows, four in the catheterization labs each day. We have about 35-40 procedures each day in four labs. So fellows are expected to move rapidly between cases while staying well-informed about the history and current presentation of each patient. We finish at about 6:00-7:00 p.m. Besides that, we are on call a few week nights and a weekend per month and it’s regularly ‘active.’ Most importantly, the ambience among the fellows is very pleasant and the mutual support is really wonderful.”

WHAT ABOUT RESEARCH?

“Research is part of the fellowship as it is a part of any academic career. We have to find our own time to complete it. About 20 percent of your week goes to research, 80 percent to clinical practice. Most of the projects I’m involved in currently are related to different issues in aortic valve replacement without the need for open heart surgery, a practice that has become well-established in the past decade.”

WHAT’S HAPPENING WITH THE FAMILY?

“I see my family more than in Israel because we have these long weekends. Despite the intense days, we are enjoying the time with each other very much.

“We’re traveling around Quebec, which is beautiful, and we’ve been to Washington D.C., New York and Philadelphia. We find time for hiking and skiing and the kids enjoy it very much. Fortunately, we live next to a few other families of Israeli fellows and spend much time together.”

WHAT DO YOU PLAN TO DO WITH YOUR MONTREAL EXPERIENCE WHEN YOU RETURN TO ISRAEL?

“I hope to find my place in Israel as an interventional cardiologist with clinical and academic practices.”