

Ronald K. Woods was born in Olney, IL and grew up in nearby Newton. In 1982, he entered Eastern Illinois University in pursuit of a degree in chemistry. Quite soon after he began taking courses, it was apparent that he was a very special student. He was intellectually mature and had very clear, specific goals for his future. Well before entering college, he had decided to become a pediatric physician and to specialize in heart surgery. He was one of those students who appear in the Department of Chemistry every five or ten years, one who often interacted with faculty almost as a colleague rather than a student.

An especially notable example of Dr. Woods' maturity as a student was a seminar he presented to the faculty and students of the Department of Chemistry. Titled "Medical Diagnostic Imaging as Observed Through a Nuclear Magnetic Resonance Window," it introduced the audience to Magnetic Resonance Imaging (MRI). MRI had only been reported about a decade earlier and was just beginning to be adopted by hospitals as a diagnostic tool. In his presentation, Woods not only explained the theory behind the technique and how it produced an image, but had actually modified the small magnetic resonance spectrometer in the Chemistry Department to create his own demonstration images. This was no mean feat as our instrument was designed to generate one-dimensional clues about the structures of molecules, not images. Woods had to retune the spectrometer, position his sample at various orientations, and scan each orientation to generate a series of cross-sectional images. Needless to say, chemistry faculty members were very impressed that an undergraduate could read and understand the scientific literature well enough and possessed sufficient motivation, confidence, and skill to accomplish this task.

During his time at EIU, Woods also participated in research with Professor Giles Henderson which led to a publication, "Fourier Transform Infrared Spectroscopy," in the *Journal of Chemical Education*. Professor Henderson recalls that once after he and Woods had been blue-gill fishing, Woods especially wanted to filet the smallest fish as he thought "it would be good practice for his projected career in surgery."

Woods' outstanding academic achievements at EIU were recognized by the College of Sciences in choosing him to receive the Frommel Award (outstanding student in biology or chemistry), the Dudley Award (outstanding student in the fundamental sciences), the Hutton Memorial Scholarship (outstanding premed student), and the Merck Index Award (chemistry).

### Medical and Graduate School

For his medical training, Woods chose to attend the University of Illinois Medical College. While he never lost sight of his goal to become a pediatric surgeon, he also developed a strong interest in doing scientific research. Thus, he decided to simultaneously obtain an M.D. and a Ph.D., choosing to do his dissertation research in an area of biophysics that would have significant association with his interest in medicine. Professor Paul Lauterbur, Nobel Prize winning co-inventor of MRI, and Professor Harold Swartz became Woods' co-research directors. His Ph.D. research led to five publications, two in the *Journal of Magnetic Resonance*, one in *Physics Medicine*, one in the *British Journal of Cancer*, and one in *Medical Imaging*.

In medical school, just as at EIU, Woods was the recipient of numerous awards, including a General Assembly Scholarship, the Lange Outstanding Medical Student Award, the McGraw-Hill Award, the Ciba-Geigy Award for community service, the Chancellor Student Service Award, the Upjohn Achievement Award, the Merck Award for Outstanding Senior Medical Student, and the Warren H. Cole Scholar for excellence in Surgery. He was also designated valedictorian of his graduating class.

### Residencies & Fellowships

After graduating from medical school, Dr. Woods moved to the University of Washington in Seattle, where he completed a five-year residency in General Surgery leading to certification by the American Board of Surgery. This was followed by two years of a Fellowship at Children's Mercy Hospital in Kansas City working with acclaimed pediatric surgeon Keith Ashcraft, MD after which he was awarded special certification in the subspecialty of Pediatric Surgery by the American Board of Surgery. To further broaden his qualifications, Woods completed a Fellowship in Cardiothoracic Surgery at the University of Washington, leading to certification by the American Board of Thoracic Surgeons. Following an additional year of training in Pediatric Cardiac Surgery at Great Ormond Street Hospital for Children in London with Mark deLeval, MD, an internationally acclaimed pediatric heart surgeon, Woods was granted special certification in Pediatric/Congenital Heart Surgery by the American Board of Thoracic Surgery.

Dr. Woods' pursuit of multiple board certifications was completely consistent with his goal of becoming a broadly qualified pediatric surgeon specializing in the treatment of cardiac conditions. Traditionally, pediatric surgeons treat noncardiac anomalies in the chest (as well as a variety of anomalies in other parts of the body), while pediatric cardiac surgeons treat only pediatric or congenital cardiac anomalies. Because many babies have abnormalities that are not isolated to just one organ in the chest, Dr. Woods wanted to be a pediatric surgeon with the expertise and professional certification to be recognized as a complete pediatric chest surgeon. At present, there is only one other surgeon in the United States who has completed this level of multi-board certification.

### Hospital Appointments

Dr. Woods' early objective of becoming the most qualified cardiac and thoracic children's surgeon possible having been achieved, he was ready to begin an independent career. In 2003, he returned to the northwest where he became the Division Chief of Pediatric Cardiothoracic Surgery at Mary Bridge Children's Hospital in Tacoma, WA and developed a joint program with Swedish Medical Center in Seattle, WA to expand service to children in the entire Puget Sound region. He also held appointments at Tacoma General Hospital and at Oregon Health Science University and Doernbecher Children's Hospital. His roles at Mary Bridge Hospital also included serving as Co-director of the Extracorporeal Life Support program, President of the Multicare Executive Committee, and President of the Medical Staff.

Under Dr. Woods' leadership at Mary Bridge, a program was launched in 2008 to screen newborns for congenital heart defects (CHD) by pulse oximetry. CHD occurs in approximately 8:1000 births and is the leading cause of newborn and infant death. Knowing that these defects are sometimes overlooked and not routinely diagnosed in newborns, Dr. Woods took steps to ensure early detection by a simple, inexpensive, non-invasive procedure. Thanks to his efforts, many initially impaired little ones are now living normal lives.

The outstanding nature of Woods' professional contributions during this phase of his career led to a number of accolades. In 2007, he received the Multicare Health System Quality Leadership Recognition Award and in 2008, he received Multicare Health System President's Award for Excellence in Total Quality. (Multicare is the health care corporation that owns several hospitals in the Puget Sound region.) Woods also was recognized as one of "Seattle's Best Docs in Pediatric Cardiac Surgery" by *Seattle Magazine*.

In February of this year, Dr. Woods moved his practice to Children's Hospital of Wisconsin Herma Heart Center and The Medical College of Wisconsin where he accepted appointment as Associate Professor of Surgery in the Department of Cardiothoracic Surgery. In 2009, *Parents Magazine* rated Children's Hospital of Wisconsin third in the nation in its Best Children's Hospital category and it has also been named one of America's Best Children's Hospitals by *U.S. News & World Report*. It was inevitable that Dr. Woods would end up at one of the best children's medical centers in the world.

Currently Dr. Woods is engaged in active clinical practice with two partners. They collectively perform approximately 700 surgeries per year including microsurgeries, minimally invasive surgeries, heart transplants, and numerous other procedures. He is also actively involved in teaching medical students and residents. And he continues to devote effort to developing new and innovative procedures to enhance the care and outcomes of children with congenital defects of the heart or other thoracic anomalies.

#### Medical Research

In addition to performing surgery, Dr. Woods has contributed a number of scholarly papers, based on his research and experience, to medical journals. They include such subjects as "Thoracotomy for Persistent Bronchopleural Fistula in the Very Low Birth Weight Infant", "Single Cannula Technique and Robotic Telescopic Assistance in Infants and Children Requiring Laparoscopic Nissen Fundoplication", and "Transition to Post-Bypass Pediatric Mechanical Support." (A complete list of publications can be found in Dr. Woods' Curriculum Vitae which accompanies this letter.) Many of these papers describe new and innovative strategies or procedures that improve the surgical care of children.

#### A Caring Physician

Dr. Woods is held in very high regard by the parents of his patients. On December 16, 2010, the mother of River, one of Dr. Woods' patients, posted the following tribute on her blog (**Error! Hyperlink reference not valid.**) .

"I found out recently that River's cardiac surgeon is leaving Mary Bridge. This made me very sad, but also reminded me of just how grateful we felt that he was our baby's doctor. Dr. Ron Woods is one of those people you meet that you will never forget, and one of the most important people in our lives. Granted he also must have an amazing team surrounding him to do his job well, it was also his skill and love of the craft that makes him so good.

"When River first had to have surgery, at only 2 weeks old, and very tiny, only 1.7 kg, we were of course petrified and thoroughly living a trauma, not much could make us feel better, but after Pete met with Dr. Woods he was at peace, and told me I had nothing to worry about. I of course

didn't get that, I hadn't met him yet, and I was living through the worst days of my life. But after speaking to him, I also felt the same confidence. He said all the kids he works on were his kids, that when he's in surgery, they might as well be his own babies. He told us he wanted to be a cardiac surgeon since he was 6 years old. He told us that this is what he was meant to do, a true calling, and that is why he is on this earth. I can't even talk about Dr. Woods without tears in my eyes!!!

“He also did River's VSD repair surgery, when she was also so small and fragile, 5.3 kg this time. I was not as terrified this time, and I knew if River could get through what she'd already lived, that she could pretty much beat anything, and having Dr. Woods and the familiarity of the hospital and nurses, I felt again at peace, and I knew everything would be ok.



“Anyway, so we put together the only thing that we thought could say ‘thank you for saving our daughter's life’. I mean how do you say something like that? It's so hard, but we thought just a simple picture of our baby, her smile, her alive was the best gift.



It says: 'River Belle. We are grateful our daughter's heart was in your hands. Thank You Dr. Woods.' ”

### International Humanitarian Work

Dr. Woods has not confined his treatment to patients who come to him through his medical practice but has also generously donated his services in impoverished regions of the world. In 2004 he traveled to Ingwavuma, South Africa, where he spent two months as a volunteer physician at a rural homeland hospital. This area, which is in the KwaZulu-Natal Province, has an unemployment rate of about 60%, 5% of households have piped water, and 3.5% have electricity. We can be sure that Dr. Woods was not there on a pleasure trip.

In 2007, Dr. Woods' turned his humanitarian focus toward Vietnam, a country with more than 20,000 children in need of pediatric cardiac care. In an effort to help the country meet that need, Woods organized a team from his Seattle/Tacoma-based program to build a program in a large 1000-bed children's hospital in Ho Chi Minh City. They partnered with East Meets West Foundation, a non-governmental organization dedicated to assisting disadvantaged communities in Southeast Asia. Together they provided substantial financial, logistical, and educational assistance to the hospital. The medical team followed up with annual two-week visits over a four-year period and, in collaboration with another support team from Singapore, also provided year-round electronic consultation. As a result, the hospital was able to initiate and grow a pediatric cardiac surgery program. Subsequently, a very well-known US-based non-governmental organization, Children's HeartLink, became aware of the effort and chose to direct their substantial logistical and infrastructure support to the project. Thanks to all of these efforts and, according to Woods, the extreme dedication and hard work of the local staff at the hospital as well as forward-thinking hospital administrators and local government support, the program now performs over 250 cardiac surgeries annually with one of the best survival rates in Southeast Asia.

### Summary

In the years since his graduation from EIU, Dr. Woods has accumulated a truly exceptional record of accomplishment and excellence underscored by a deep commitment to serving others. He personifies the very best of what we hope for all of our graduates and, by extension, brings distinction to the University.