My father was a general practitioner. He died in 1943, when I was 5 years old, and ever since, I had been committed to become a general practitioner as well. Close friends in my rowing club had been residents in surgery and were enthusiastically talking about their experience. Those relationships and conversations convinced me to become a surgeon: I have always been thrilled to work in surgery and never regretted my decision!

I had been a second year resident at the University Hospital in Groningen, when the institution decided to start a kidney transplant program in 1968. When a traffic victim became available as a suitable donor, I was asked to organize the activities of the procurement, donor and transplant teams. Procurement started after cardiac arrest. Soon, I became responsible for the organization and procurement of kidneys for transplantation. Of note, all donors at this time had been donors after cardiac arrest. The shortage of organ donation, albeit not as pronounced as it is today, had already been obvious during the early days of transplantation.

Transplantation: Was there a particularly formative experience in your career?

GK: In 1974, I moved to Denver, Colorado, to work with Tom Starzl and his team. During that time, there were very few liver transplant centers worldwide, including Tom Starzl’s program in Denver and Sir Roy Calne’s program in Cambridge, England. My direct chief in Denver was Bo Husberg. The need for livers and kidneys was obvious, although live donor kidney transplants had been performed. My stay in Denver was a formative experience, shaping my clinical and academic interest for years to come.

Transplantation: What would you consider the most pressing current problem in transplantation?

GK: Organ transplantation has improved in many areas. Immunosuppression, albeit suboptimal, is linked to mostly manageable side effects and reasonable long-term outcomes. With those successes, organ shortage is currently the most pressing clinical problem.

Transplantation: Organs from donors after cardiac death have been used increasingly. Where do you see opportunities and challenges?

GK: In theory, we could have sufficient amount of available organs to eliminate waiting times altogether. To achieve this goal in reality, we need sensible and effective public communications and legislative implication. Logistically, systems need to be established that ensure the rapid transportation of donors after circulatory arrest to experienced centers or, as an alternative, to implement an immediate perfusion of organs onsite subsequent to the declaration death due to irreversible circulatory arrest. Assessing organ quality and viability will be critical and particularly helpful for Maastricht categories 3 and 4 donors.

Transplantation: We have recently seen great progress in novel preservation methods. Where do you see the future of organ preservation?

GK: We started our experimental work with a combination of cold machine preservation and brief warm preservation periods as early as 1976. In those experiments, we used a machine perfusion device that preserved kidneys for up to 6 days. Of note, none of the kidneys that were kept for 6 days solely under cold machine perfusion regained function. However, the vast majority of kidneys preserved for the same duration (6 days!) and conditions with the exception of a brief perfusion with autologous blood at normothermia regained normal function when autotransplants were performed. Those experiments demonstrated clearly that warm preservation was advantageous. We felt confident at the time that a prolonged and successful preservation could open the door to novel immunosuppressive protocols and potentially tolerance induction in recipients of deceased donor kidneys.

In 1980, I moved to Maastricht, The Netherlands. Here, we continued our successful long-term preservation experiments and used a heart-lung machine to facilitate intermittent warm preservation with extremely complex preservation solutions. Lauren Brasil from BREONICS, Inc., was of great help in supporting us with novel preservation solutions. It is exciting to see many centers working on warm preservation approaches that use whole blood, components of blood or tissue culture media today. I am convinced that the concept...
of organ repair units combined with a viability and quality assessment will be implemented in the next 5 years!

**Transplantation:**
*What recommendations do you have for young clinicians and scientists going into surgery and transplantation?*

**GK:** Do not stay at home! Get an international experience, travel, go to meetings, visit other programs, discuss your thoughts and ideas and build networks of peers and mentors. Nothing is wrong with having unconventional ideas; bring them forward and discuss them with mentors and peers. Use all opportunities to present your work at national and international meetings. Ideally, take time off and go abroad to expand your clinical and academic horizon.

**Transplantation:**
*How do you see our field in the year 2050?*

**GK:** For live donor transplants, I see great opportunities to develop novel avenues for treatment. Sufficient donor tissue and cells that can be manipulated support therapies that will induce donor-specific tolerance. I envision that preservation techniques will advance rapidly in the near future making a long-term preservation of organs possible without compromising quality. During the time the organ is preserved, and ideally improving in quality, recipients can undergo donor-specific treatments. I can envision organ repair centers that prepare donor tissue that can be used for therapeutic approaches in recipients during the preservation time of a deceased donor organ. Novel preservation approaches will also provide us with opportunities to reduce the antigenicity of organs. Transplant surgery itself will be, and already is to a great extent, routine. Nevertheless, the individual patient and the outstanding research potential in our field will be exciting.

**Transplantation:**
*What excites you outside of your clinical and research interest?*

**GK:** Life goes through ups and downs, particularly as one is getting older. My wife passed away 3 years back. I started to paint, which has been challenging and fun while providing me with the opportunity to meet many new and wonderful friends. I enjoy playing bridge, a most entertaining distraction and a wonderful way to exercise my brain. I ran into an amazing woman with whom I go back to the days of my youth. Life is wonderful, and I enjoy every moment of it!

**REFERENCE**