

‘Enjoy Thinking, Even if It Is Hard Work’

An Interview with Professor Gunther Kloeppel

Martin E. Fernandez-Zapico

Gastroenterology Research Unit, Saint Mary’s Hospital, Mayo Clinic College of Medicine, Rochester, Minn., USA

Abstract

Professor Gunther Kloeppel is a distinguished pancreatic pathologist, recognized the world over for his enormous contribution to the understanding of the pathogenesis of different pancreatic diseases. In the current article, Prof. Kloeppel, a role model for establishing a productive academic career, gives advice to junior investigators starting in the field of pancreatic research.

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M.F.-Z.: What stimulated you to work in pancreas research in the first place?

G.K.: My interest in the pancreas and in pancreas research came by chance. Desperate because I had failed to finish a post-graduate thesis on the turnover of hydroxyprolin in bone, I was looking around for a supervisor and consequently a new topic for a thesis. This was at the time when I was taking my final examination, and after a very successful session in pathology, Professor Gerhard Seifert, head of the Department of Pathology at the University of Hamburg, offered me the position of a beginning resident (‘Medizinalassistent’). Being delighted to get a job so easily, I asked Professor Seifert whether he could also provide me with some scientific work in his field of interest. At the end of this very fruitful examination I had a job and a new thesis. Gerhard Seifert’s research happened to focus on pancreatic pathology related to diabetes and pancreatitis. In the 1960s the seminal papers in diabetes were on insulinitis as the



most characteristic lesion in acute-onset type 1 diabetes, hence my work concentrated on the experimental production of insulinitis using antisera against insulin and insulin immunization. This resulted in some nice models of insulinitis in mice and rabbits that supported the idea that insulinitis is an immune-mediated attack against beta cells.

M.F.-Z.: You have pioneered pancreas research in so many directions. At the end of the day, what has given you the most personal satisfaction?

G.K.: The greatest personal satisfaction came from my contributions to the discovery and description of the pathology of new diseases of the pancreas. For instance, I was fascinated when I first saw the changes in the endocrine pancreas in newborns suffering from persistent hyperinsulinemic hypoglycemia. I was similarly enthralled when I described in detail the then practically unknown tumor of the pancreas that is now called 'solid pseudo-papillary neoplasm'. Another exciting experience was recognizing that in multiple endocrine neoplasia almost all tumors that produce gastrin are multicentric and occur in the duodenum. Finally, great satisfaction also came from work that helped to clarify the pathogenesis of certain diseases, for instance alcoholic chronic pancreatitis.

M.F.-Z.: Based on your experience as mentee and mentor, can you comment on the value of mentorship for the development of new investigators?

G.K.: As a mentee it is important to find someone who is able to teach and live the basics: original thought, careful work, logical writing, enduring the recurrent frustration of research and showing modesty. Unfortunately, this ideal person does not exist, but anyone who is an approximation to this ideal will already be a good mentor. On the mentee's side it is the curiosity, will and talent to pursue and solve a few of the issues in medical research.

M.F.-Z.: What is the best advice you have received during your career? What is your advice to the young investigators who are beginning in the field of pancreas research?

G.K.: I do not remember any specific advice that influenced my career profoundly. However, I learned from many people with whom I worked over the years. In par-

ticular, I would like to mention Gerhard Seifert, Philipp Heitz, Horst Kern, Patrick Fitzgerald, Enrico Solcia, Daniel Longnecker, Daniel Pipeleers and Stefan Hahn. From these friends and a number of others whom I did not mention I learned a lot, and I would like to pass on my experience with this advice: focus on one or two important questions and never lose sight of them during all of life's daily requirements. Take pleasure in what you are doing and enjoy thinking, even if it is hard work. Set a goal even if you think it may be above your capabilities.

M.F.-Z.: What do you think are the big questions that need to be answered in pancreatology?

G.K.: The main problem is the early diagnosis and treatment of pancreatic ductal adenocarcinoma, since there is no cure so far. For early diagnosis, a marker protein is needed that can be detected either in the serum or by imaging techniques. For early treatment, we need to identify an antagonist for a special receptor on pancreatic carcinoma cells that transmits growth stimulatory signals in the cancer cell. Another important goal is to inhibit the initial damage to the pancreas in acute pancreatitis, i.e. pancreatic necrosis. Here, a compound that stops the leakage of enzymes from the pancreatic acinar cells would certainly help to minimize the deleterious autodigestion of the pancreas. Finally, we need to find a way to induce beta-cell regeneration and to learn why beta cells become insufficient in type 2 diabetes. To attain these goals, studies on beta-cell regeneration by means of stem cell administration and studies on growth control of beta cells in adult life would be very helpful.

M.F.-Z.: What do you think is the major need that a journal like *Pancreatology* should fill?

G. K.: Translational studies.

Martin E. Fernandez-Zapico, MD
Scientific Editorial Assistant