

'Do Experiments That Will Help Solve Clinical Problems.'

An Interview with Professor Seiki Matsuno

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Abstract

In the current interview, Professor Seiki Matsuno shares his experience and provides career advice to young investigators initiating in pancreatic research. Professor Matsuno is internationally recognized for his contributions to different areas of pancreatology, including the clinical characterization and treatment of pancreatic diseases.

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

S.M.: It was the lecture of Professor Tetsuo Maki when I was a medical school student at Tohoku University School of Medicine that triggered my interest in pancreatic research. Maki, who established 'pylorus-preserving gastrectomy', had been conducting research widely on differences between the West and Japan in pancreatic diseases. He was interested in differences in the milder extent of acute pancreatitis in Japanese compared with Western populations. In his lecture, Maki showed studies on rat feed that led him to propose the hypothesis that low protein and lipid diets contributed to the difference in pancreatitis outcome between these two populations. After having graduated from Medical School in 1966, I began training as a surgeon and started working in pancreatic research with Professor Toshio Sato at the First



Department of Surgery in Tohoku University. During this period, I was involved in projects investigating the influence of exogenous trypsin inhibitor infusions (using Thomas canula) on dogs with chronic pancreatitis. We reported for the first time the beneficial effect of the infu-

sion on the outcome of acute pancreatitis. The findings from this study led us to the development of the intra-arterial infusion therapy for necrotizing pancreatitis that now is performed in many institutions worldwide. Later in my career, the scientific interaction and inspirational discussion with my colleagues, including Charles F. Frey, Edward Bradley and Hans G. Beger, always kept me highly motivated for this area of investigation.

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

S.M.: At the end of the day, the greatest satisfaction in research are the personal relationships that I developed with my colleagues and the opportunity to address clinical questions that, I hope, will contribute to the improvement of patient prognosis. For example, I found the studies on the development of the arterial infusion therapy for severe acute pancreatitis very rewarding and I am proud of the large pancreatic cancer register in Japan (>20,000 patients) that has been established over the last 25 years and that reveals the actual situation of the treatment of pancreatic cancer.

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

S.M.: In order to succeed in research, a good environment and mentorship are essential. A mentor requires a broad knowledge beyond specialties and enough power to raise the academic curiosity of young investigators, especially at the beginning of a career in research.

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

S.M.: The best advice I have ever received in my career was from Tetsuo Maki when I was in my first year of

surgical residency at Tohoku University. He said, 'Do experiments that will help solve clinical problems.' I would like to repeat this advice to young investigators and suggest staying constantly updated on the new findings in basic research, in particular those associated with their specialties.

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

S.M.: The prognosis of patients with pancreatic cancer has not been improved over the last 4–5 decades due to the biological aggressiveness of pancreatic cancer. Even though we have obtained much information about genetic abnormality as well as mechanisms of carcinogenesis using a biological approach, the essentials of the aggressive behavior have not been clarified yet. This is the biggest concern in the treatment of pancreatic cancer.

As for acute pancreatitis, this is a benign disease and I hope that the lifesaving rate will get close to 100% in future. However, the mechanism of pancreatic necrosis still is poorly understood and knowledge in this area will be fundamental to improve patient survival.

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

S.M.: Over the last few years, *Pancreatology* has been increasing its impact factor due to the quality of original papers that have been accepted. However, *Pancreatology* needs to continue publishing review articles of high quality and develop new areas of interest, such as circulation or hemodynamics of pancreatic diseases.

M.F.-Z.: Professor Matsuno, thank you very much for this stimulating conversation.

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