

'It's Important to Know When to Turn Back' – An Interview with Albert Lowenfels

Martin E. Fernandez-Zapico

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

Abstract

Dr. Albert Lowenfels made outstanding contributions to the understanding of pancreatic diseases. His exceptional achievements in the field of pancreatic epidemiology were seminal for the characterization of lifestyle factors such as smoking, drinking and obesity in the pathogenesis of pancreatic diseases. In this interview, Dr. Lowenfels shares with *Pancreatology* his experience as pancreatic researcher.

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

A.L.: After completing medical school, I entered a residency program at New York's Bellevue Hospital, where many of the patients had problems related to heavy alcohol consumption – including both acute and chronic pancreatitis.

One of my first published papers was based upon a patient with a postoperative pancreatic fistula [Arch Surg 1968;96:440–441]. At that time there was little information available about the pancreatic response to intravenous alcohol, although the effects of ingested alcohol had been studied. It was a simple matter to collect pancreatic juice draining from the fistula and measure the response to intravenously administered alcohol. Soon after administering alcohol there was a marked increase in both the quantity and the amylase content of pancreatic fluid. No



further studies could be performed because within a few days the pancreatic fistula closed.

A few years after completing my residency I applied for and received a grant from the C.D. Smithers Foundation, a private philanthropic organization that focuses on

the prevention and treatment of alcoholism. The purpose of the grant was to study the impact of alcohol on surgical patients and led to the publication of a book titled, *The Alcoholic Patient in Surgery*. Several chapters discussed the diagnosis and management of acute and chronic pancreatic disorders. For nearly 40 years the Smithers Foundation has continued to support research related to the etiology of benign and malignant pancreatic disease as part of a long-term study of alcohol-related disorders.

M.F.-Z.: What has given you most personal satisfaction?

A.L.: The whole process of collaborative research: focusing on important questions, determining appropriate methodology, data gathering, report writing, even dealing with editors and reviewers. Seeing the results used by others as the basis for additional research adds to the overall satisfaction. For example, our publication quantitating the association between chronic pancreatitis and pancreatic cancer has stimulated many investigators to search for molecular links between benign and malignant pancreatic disease.

M.F.-Z.: What is the value of mentorship for the development of the new investigator?

A.L.: The process of mentoring resembles being a guide on a mountain-climbing expedition: an important function is to inspire confidence. The young investigators I've helped undoubtedly think, 'If this geriatric, half-witted surgeon can do research then it cannot be too hard. I am going to try.'

Also, similar to a mountain-climbing guide, a mentor can point to methods and pathways that are likely to be productive, and can help the young investigator avoid pitfalls likely to impede progress. Another valuable function is to introduce the younger investigator to other helpful persons.

M.F.-Z.: What is the best advice you have received during your career?

A.L.: One: Plan ahead! A successful outcome is much more likely when you've thought carefully about all the steps necessary to complete a project. It's especially important to refine your proposed research question so that you can tackle the problem in the most efficient manner. Two: Spend a long time thinking about the question before searching for answers. Hermann Druckery, a pioneer in carcinogenesis, emphasized these points during a lecture I attended early in my career, while studying biostatistics and epidemiology at the International Agency for Research on Cancer.

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

A.L.:

- Pick a problem that can be solved with the tools that are available. For example, much current pancreatic research would have been difficult prior to the availability of PCR techniques.
- Acquire some basic quantitative skills and some knowledge of genetics.
- Remember that good ideas are likely to be simple.
- Finally, remember the lesson from the oil industry: The deepest holes are the ones that go nowhere. Not all ideas are likely to be winners; it's important to know when to turn back.

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

A.L.: Compared to advances in treating diseases in other gastrointestinal organs, we've made minimal progress in improving the outcome of patients with chronic pancreatitis or pancreatic cancer over the past few decades. It seems unacceptable that we are still arguing over the relationship between acute and chronic pancreatitis. Nor do we know why so few alcoholic patients ever develop chronic pancreatitis. We don't know how to predict whether a heavy drinker will develop chronic pancreatitis or liver cirrhosis.

With respect to pancreatic cancer, overall long-term survival for all patients is about the same as it was several decades ago: nearly zero. In contrast, survival rates for most other gastrointestinal cancers have shown some improvement. Why should this cancer be so much more aggressive than nearly any other cancer?

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

A.L.: Publish innovative research aimed at reducing morbidity and mortality from pancreatic disorders. This is likely to come about by focusing on reports that help us understand the basic pathophysiology and genetics of pancreatitis and pancreatic cancer so that we can develop preventive and therapeutic strategies.

Editorial comments after selected articles provide perspective for readers to understand how a new report relates to prior publications. An additional useful section might be an abstract along with abbreviated comments on important recent articles published in other journals.

Martin E. Fernandez-Zapico, MD
Scientific Editorial Assistant