



Dear Friends and Colleagues,

Professor emeritus Ryuzo Yanagimachi (Yana), our society advisor, is now 92 years old and still conducting research energetically. He is known as a great pioneer in the field of reproductive biology and everyone respects him. Current IVF technology with a history of 43 years, has produced more than 7 million children in the world and Yana is one of the pioneers who has greatly contributed to this development.

We are honored to have such a prominent professor as our society advisor and today, I would like to share his encouraging and valuable message to you and especially to the young generation.

Sincerely,

Prof. Yoshiharu Morimoto
President, ISIVF

A note to young researchers

(From Ryuzo "Yana" Yanagimachi, Advisory Committee, ISIVF)



Bob Edwards was 3 years senior to me. Both of us had Ph.D.s, not MDs. Bob did a series of excellent basic studies of embryology-genetics using mice during 1950s with his wife, Ruth Fowler Edwards. According to Bob, she was the granddaughter of Ernest Rutherford, father of atomic physics. I was zoology-major student in Japan where I studied fertilization and reproduction in fish and crustaceans during the 1950s. I began my study of mammalian fertilization in 1960 as a postdoctoral fellow of Dr. M.C. Chang in USA. In those days, very few people were studying mammalian fertilization. I thought this area would become important someday because fertilization is a critically important step in the life cycle of all living creatures

including humans. I was interested in IVF as a tool to analyze the process and mechanism of fertilization in mammals.

Before the 1960s, only handful MDs in the world were interested in IVF. Some thought that IVF would overcome such a gynecological problem as female infertility due to tubal (oviduct) block. In early 1960s, Edwards began to study in vitro maturation of eggs of various mammals. He soon began to study human eggs with Patrick Steptoe (MD), an expert of laparoscopy, who was studying human ovulation using this technique. Not only was the progress of their IVF study slow, they also met formidable resistance/criticism from not only religious leaders, but also from some scientific colleagues. When the first IVF baby was born in 1978, many scientists as well as laypeople were skeptical and worried about potential health problems of babies



(Bob Edwards in 1964, in his laboratory of Cambridge University.)

because IVF bypasses many natural processes of fertilization. Whenever we do something new in human reproduction, we must expect resistance from laypeople as well as medical community. Human IVF was a good example. I believe that 50% of Bob Edward's receiving the Nobel Prize goes to his and Steptoe's courage to withstand formidable pressure from outside during the course of their endeavor.

When I was a student, I thought all important things had been explored and no interesting and important things were left for me. I was very wrong, of course. Today, I hear young fellows saying nothing is left for them to explore. When you look back on today, 2020, 50 years from now, you will be amazed how much progress was made between 2020 and 2070. My few pieces of advice to young fellows are:

Do not be satisfied with what is known today.

There are many things very important, yet not fully explored or not explored at all.

When you go where no one has been before, you are bound to find something anew.

Success is not built on success. It is built on failures (failure is mother of success).

Fact is your strongest friend.

Ryuzo "Yana" Yanagimachi